

4.5 Visual Resources

4.5.1 Affected Environment

The affected environment for the Modified Project spans the same variety of landscapes as the Approved Project: flat valley floors with desert scrub and agricultural fields in the Antelope Valley in Northern Los Angeles County; barren, rolling foothills south of Vincent Substation; remote, rugged mountains of the San Gabriel Mountains in the ANF; and rapidly developing urban and suburban communities of the San Gabriel Valley and Inland Empire of Western San Bernardino County. Differing from the Approved Project, the Modified Project would not affect the rugged mountains of the Tehachapi Wind Resource Area in Southern Kern County, Orange County and the communities between East Pasadena and Monterey Park since there are no proposed marker balls or aviation lights in these portions of the Approved Project (Segments 10, 4, and 11 south of the ANF). To facilitate consistency with the Final EIR and Final EIS this visual resource analysis is divided into the same three sub-areas, but excludes areas that are not affected by the Modified Project:

- **North Area:** The North Area extends from the Antelope Substation to the Vincent Substation (Segment 5). The North Area traverses northern Los Angeles County, as well as the incorporated cities of Lancaster and Palmdale.
- **Center Area:** The Center Area is located between the Vincent Substation and the southern boundary of the ANF (Segments 6 and 11). The majority of the Center Area falls within the jurisdictional boundaries of the ANF and includes all of the Segment 6 and approximately 70 percent of Segment 11.
- **South Area:** The South Area extends from the southern boundary of the ANF to the Mira Loma Substation (Segments 7 and Segments 8, Phases, 1, 2, 3 and 4). The South Area includes numerous cities and unincorporated areas in Los Angeles and San Bernardino Counties, including : Duarte, Irwindale, Hacienda Heights, La Habra Heights, Rowland Heights, Chino Hills, Chino and Ontario.

As described in the Final EIR and Final EIS, the Study Area for the visual resource analysis includes the viewsheds from which the Modified Project could be seen, including immediate foreground, foreground, middleground, and background viewing distances. Viewing distance is the distance between a viewed object and viewer based on the concept that when a viewer is closer in proximity to a viewed object, more detail can be seen and there is greater potential influence of the object on visual perception and consequently, visual quality. The following four viewing distances, as defined in the Final EIR and Final EIS, apply to this SEIR/SEIS:

- Immediate foreground (approximately between 0 and 300 feet from viewers)
- Foreground (approximately between 300 feet and 0.5mile)
- Middleground (approximately between 0.5 and 4 miles)
- Background (beyond approximately 4 miles)

The sum of the viewing distances from which the Modified Project can be seen make up the viewsheds that define the Study Area which is sub-divided into three regional landscape areas: North, Central, and South, as described above. The Final EIR and Final EIS further sub-divide each of these areas into landscape units, within which key observation points (KOPs) were located. In the North and South areas of the Project this analysis differs from the Final EIR in that it focuses on the landscape units associated with the KOPs selected to evaluate the Modified Project. The KOPs in North and South areas were selected as representative of the types of viewing conditions that could occur throughout the Project area. In the Center Area, conditions have changed noticeably since the 2009 Station Fire. In the Center Area, all the KOPs from the Final EIS are considered, although only six were re-simulated to

show the Modified Project, and one new KOP was added to the analysis. All the KOPs from the Final EIS were considered because of the extensive coverage of marker balls proposed for the ANF; the diverse range of landscape character, including modified landscapes resulting from the 2009 Station Fire, and; viewing distances of the Modified Project that range from immediate foreground and foreground to middleground and background distance zones. See Table 4.5-1 for the list of simulated KOPs and number of marker balls and aviation lights associated with each Project segment, and Figure 4.5-1 (located at the end of this section) for a map showing the KOP locations. Figure 4.5-2 (located at the end of this section) provides a map of the ANF, including Landscape Places and Scenic Integrity Objectives (SIOs – see definition below in Section 4.5.1.3). For additional information on landscape units and their associated landscape character, refer to Appendix B of the *Visual Resources Specialist Report* (Anderson, 2009).

Table 4.5-1. Modified Project Features by Landscape Region, Project Segment, and Associated KOP						
Landscape Region	Segment	Segment Location	Transmission Structures with Aviation Lighting ^{1,2}	Transmission Line Spans with Marker Balls ^{1,2}	Key Observation Points (KOP) ³	Project Features Seen from KOP
North Area: Antelope Valley	10	TWRA	1	0	None	None
	4	TWRA-Lancaster	0	0	None	None
	9	Whirlwind Substation	0	0	None	None
	5	Lancaster-Palmdale	11	26 spans (186)	A: Bower Place at Paintbrush Drive, Palmdale	Marker balls on spans between towers Const 44-46 Aviation lights on towers Const 44-46
Center Area: San Gabriel Mountains	6	Outside ANF boundary	2	10 spans (58)	None	None
		Inside ANF	0	68 spans (596)	C: Northbound Angeles Forest Highway near Mill Creek Summit (Center-2)	Marker balls on spans between towers RH-V Const 23-26
					D: Southbound Upper Big Tujunga Canyon Road (Center-6)	Marker balls on spans between towers RH-V Const 62-65
					E: Vetter Mountain Lookout (Center-8)	Marker balls on spans between towers RH-V Const 69-73
	11	Inside ANF	4	51 spans (503)	B: Eastbound Aliso Canyon Road near Soledad Canyon Road (Center-1B)	Marker balls on spans between towers Const 14-16 Aviation lights on tower Const 15
					F: Pacific Crest Trail near Mount Gleason (Center-14)	Marker balls on spans between tower Const 25x-30
					G: Northbound Angeles Forest Highway, above Big Tujunga Reservoir (Center-17)	Marker balls on span between towers 52-53x
					H: Eaton Canyon Park, Altadena	Marker balls on spans between towers M3-T3, M4-T1 to M4-T3, and M5-T1 to M5-T2

Table 4.5-1. Modified Project Features by Landscape Region, Project Segment, and Associated KOP

Landscape Region	Segment	Segment Location	Transmission Structures with Aviation Lighting ^{1,2}	Transmission Line Spans with Marker Balls ^{1,2}	Key Observation Points (KOP) ³	Project Features Seen from KOP
		Outside ANF boundary	4	3 spans (23)	B: Eastbound Aliso Canyon Road near Soledad Canyon Road	Marker balls on spans between towers Const 16 and 17 Aviation lights on towers Const 16 and 17
South Area: San Gabriel Valley	7	Duarte-Irwindale-Baldwin Park-Industry	24	37 spans (253)	I: Tocino Drive at Royal Oaks Drive, Duarte (South-1)	Marker balls on spans between towers M27-T2 to M27-T4 and M28-P1
					J1: Greenbank Avenue, Duarte (Nighttime)	Aviation lights on towers M27-T4 and M54-T3A
					J2: Royal Oaks Drive, Duarte (Nighttime)	Aviation lights on towers M27-T4 and M54-T3A
					J3: Buena Vista Street, Irwindale (Nighttime)	Aviation lights on towers M27-T4 and M54-T3A
					K: Legg Lake, Whittier Narrows Recreation Area, Los Angeles County (South-6)	Marker balls on spans between towers M39-T3 and M39-T5 Aviation lights on tower M39-T3
	8 Phase 4	Monterey Park to Highway 57	9	62 spans (481)	L: Cargreen Avenue, Hacienda Heights	Marker balls on spans between towers M47-T4 and M48-T1
	8 Phase 1	Highway 57 to Chino	1	19 spans (148)	M: Crossroads Park, Carbon Canyon Road, Chino Hills	Marker balls on spans between towers M62-T3-T4
					N: Morningfield Drive, Chino Hills	Marker balls on spans between towers M62-T4, M62-T3 and M63-T1
	8 Phases 2/3	Chino	34	0 spans (0)	O: Bike path near Edam Street, Chino	Modification of Tubular Steel Poles (TSPs) to Lattice Steel Poles (LSTs)
					P: South Archibald Avenue at Arabian Place, Chino	Modification of Tubular Steel Poles (TSPs) to Lattice Steel Poles (LSTs)
	TOTALS		90	276 spans (2,248)		

Source: SCE, 2012b.

1 - All determinations from the FAA have been received, with the exception of one structure (M68-T2 in Chino – Segment 8, Phase 3, which is assumed to require aviation lighting); all numbers presented are approximate based on the FAA's recommendations.

2 - Lights and/or marker balls have already been installed following the FAA's recommendations on several for those structures and T/L spans constructed prior to receipt of the FAA's recommendations to avoid associated safety issues. Construction was halted by the CPUC on Segments 7 and 8 (Memo to Susan Nelson dated November 28, 2011 – CPUC, 2011); however, CPUC later directed SCE to complete installation of FAA recommendations on towers already constructed and presenting an aviation hazard, including some in Segments 7 and 8, all other structures where FAA recommendations were pending and supplemental analysis is required.

3 - KOP names from the Final EIR and Final EIS are shown in parentheses where applicable.

4.5.1.1 Baseline Data Collection Methodology: KOP Selection

Baseline data were collected using an approach similar to that described in Final EIR and Final EIS Section 3.14.2.1. Extensive information on the Approved Project was reviewed including the visual

resource sections of the Final EIR and Final EIS, the Tehachapi Renewable Transmission Project Visual Resources Specialist Report (September 2009), and the Project Modification Report (SCE, 2011b). Other methods include analysis of aerial photographs and satellite imagery (Google Earth, 2012), review of maps, field reconnaissance, site analysis, and on-site photography.

The visual analysis for the Modified Project uses a KOP analysis and review of the KOPs and simulations in the Final EIR and Final EIS to evaluate potential impacts. The KOPs were selected based on their ability to exemplify visual resource impacts of the Modified Project. First, existing condition photographs are taken from the KOP locations then computerized visual simulations are prepared. The simulations aid in the assessment of visual change and overall impact significance, which is arrived at by evaluating the extent of visual change in the context of existing visual sensitivity. In the Center Area, within the ANF where the Forest Service's Scenery Management System (SMS) applies, the analysis is based on the SMS, the 2005 ANF Land Management Plan (Forest Plan), and SIOs. For the Center Area, KOP simulations are used to "aid" in the analysis.

The baseline data for the affected environment setting consists of revisiting the original KOPs established in the Final EIR and Final EIS, and supplementing those with new KOPs. KOPs for the Modified Project were selected using the following methodology:

- Review the Modified Project description to identify the portions of Project segments that would have marker balls, and/or aviation lights.
- Identify sensitive visual receptor locations based on the Visual Resources section of the Final EIR and Final EIS, giving consideration to existing KOP locations.
- Identify additional KOPs to cover high-profile areas based on public comments on the Draft EIR/EIS.
- Field check potential KOP locations and identify preferred KOP locations.
- Select photography locations for KOPs, and collect site information on visual character, distance to Project, view orientation, user groups, and distance zones.

The purpose of a KOP analysis is to be able to compare the visual change between the existing condition (Approved Project) and the proposed project (Modified Project) in the context of the existing visual sensitivity.

Daytime and Nighttime Photography and Visual Simulation Methods

Photography of KOPs depicting daytime conditions (showing marker balls) under the Modified Project uses the same photographic methods as those described for the Approved Project in Section 2.1 of the *Visual Resources Specialist Report* (Anderson, 2009). For the Modified Project, baseline photography was taken for KOPs A, H, K, L, M, and N since these are new KOPs not analyzed under the Approved Project. For the other KOPs (B, C, D, E, F, G, I, O and P) baseline photography is from previous reports as described in Table 4.5-2 below.

Under the Approved Project there were no KOPs depicting aviation lighting, therefore there were no nighttime photographs from KOPs. Under the Modified Project the addition of aviation tower lighting has raised concerns of potential nighttime visual impacts. Thus, the Modified Project includes KOPs J1, J2 and J3 which portray nighttime conditions of existing aviation lighting on Towers M27-T4 and M54-T3A in Segment 7. There are no simulations of nighttime conditions since nighttime photography of KOPs J1-J3 depict built towers with aviation lighting installed.

Nighttime photography of KOPs J1 and J2 was initially taken in the Fall of 2012, and redone on June 12, 2013 in response to comments from SCE (CITE) on the draft document regarding exposure times of

the photographs. At that time KOP-J3 was included to document the potential effects from a more distant viewpoint. In response to SCE's comment, the following detailed photographic information has been provided: photographs were taken using a digital SLR camera, set on a tripod about five feet off the ground, with no flash, an ISO-100, an aperture setting (f-stop) of 3.5; shutter speed (exposure time) varied. The KOP-J1 photograph was taken at 7:40 p.m. with a shutter speed of 4.2 seconds. KOP-J2 was taken at 7:50 p.m. with a shutter speed of 4.7 seconds. KOP-J3 was taken at 8:15 p.m. with a shutter speed of 2.7 seconds.

Visual simulation methods used for the Modified Project are consistent with the methods described in Section 2.1 of the *Visual Resources Specialist Report* (Anderson, 2009). However due to the partially constructed nature of the Modified Project, simulation was used to depict both baseline (Approved Project) and proposed (Modified Project) conditions.

Typically, on-site photography is used to portray the existing condition and photographic simulation is used to portray a proposed project's condition. For this analysis, simulation has been used to portray both existing and proposed project conditions due to the partially constructed nature of the Approved Project, which is in various stages of construction ranging from not constructed, to completely constructed, including installation of marker balls and aviation lights. For example, in Chino Hills TSPs have been constructed, but the conductors have not yet been strung. In this instance, the KOP was simulated to complete the Approved Project (under the existing condition), and then further simulation was done to add marker balls to the existing simulation to create the Modified Project condition (proposed project). Conversely, there are locations where marker balls have already been installed on the Approved Project. In such cases, simulation is used to edit or delete the marker balls from the existing condition photography to show the Approved Project, and the non-simulated photography is used to portray the Modified Project condition. In all cases the existing condition images portray the Approved Project condition, and the images of the "simulated condition" portray what the visual condition would be with marker balls under the Modified Project. ~~Additionally, nighttime photography was utilized for KOPs J1, J2 and J3. Night photography shows existing aviation lighting on Towers M27 T4 and M54 T3A in Segment 7. The photographs were taken on June 12, 2013 using a digital SLR camera, set on a tripod about five feet off the ground, with no flash, ISO 100, and an aperture (f-stop) setting of 3.5; shutter speed (exposure time) varied. KOP J1 photograph was taken at 7:40 p.m. with a shutter speed of 4.2 seconds. KOP J2 photograph was taken at 7:50 p.m. with a shutter speed of 4.7 seconds. KOP J3 photograph was taken at 8:15 p.m. with a shutter speed of 2.7 seconds.~~ Table 4.5-2 details the use of simulation for each KOP in this analysis. Figure 4.5-1, Key Observation Points, provides a map showing the locations of the KOPs (located at the end of this section).

Table 4.5-2. Modified Project KOP Locations Analyzed in this SEIR/SEIS

Key Observation Point	Corresponding KOP from Final EIR or Final EIS	Approved Project Simulation ¹ (Existing Condition)	Modified Project Simulation (Proposed Condition)
A: Bower Place at Paintbrush Drive, Palmdale (Segment 5)	None: New KOP	Approved Project constructed. Use of field photography for baseline condition, no simulation needed.	Marker balls simulated onto field photography
B: Eastbound Aliso Canyon Road near Soledad Canyon Road (Segment 11)	KOP-Center-1B: Eastbound Aliso Canyon Road, Final EIS Figure 3.14-86d	Simulation of Approved Project using field photography for base and simulation of Approved Project from Final EIS Figure 3.14-86d.	Marker balls simulated onto Approved Project simulation

Table 4.5-2. Modified Project KOP Locations Analyzed in this SEIR/SEIS

Key Observation Point	Corresponding KOP from Final EIR or Final EIS	Approved Project Simulation ¹ (Existing Condition)	Modified Project Simulation (Proposed Condition)
C: Northbound Angeles Forest Highway near Mill Creek Summit (Segment 6)	KOP-Center-2: Northbound Angeles Forest Highway, Final EIS, Alternative 6, Figure 3.14-65b	Simulation of Approved Project using field photography for base and simulation of Approved Project from the Final EIS, Alternative 6, Figure 3.14-65b.	Marker balls simulated onto Approved Project simulation
D: Southbound Upper Big Tujunga Canyon Road (Segment 6)	KOP-Center-6: Southbound Upper Big Tujunga Canyon Road, Final EIS, Alternative 6, Figure 3.14-69b	Simulation of Approved Project using field photography for base and simulation of Approved Project from the Final EIS, Alternative 6, Figure 3.14-69b.	Marker balls simulated onto Approved Project simulation
E: Vetter Mountain Lookout (Segment 6)	KOP-Center-8: Vetter Mountain Lookout, Final EIS, Alternative 6, Figure 3.14-71b	Simulation of Approved Project using field photography for base and simulation of Approved Project from the Final EIS, Alternative 6, Figure 3.14-71b.	Marker balls simulated onto Approved Project simulation
F: Pacific Crest Trail near Mount Gleason (Segment 11)	KOP-Center-14: Pacific Crest Trail, Final EIS, Alternative 6, Figure 3.14-77b	Simulation of Approved Project using field photography for base and simulation of Approved Project from the Final EIS, Alternative 6, Figure 3.14-77b.	Marker balls simulated onto Approved Project simulation
G: Northbound Angeles Forest Highway, above Big Tujunga Reservoir (Segment 11)	KOP-Center-17: Northbound Angeles Forest Highway, Final EIS, Alternative 6, Figure 3.14-80b	Simulation of Approved Project using field photography for base and simulation of Approved Project from the Final EIS, Alternative 6, Figure 3.14-80b.	Marker balls simulated onto Approved Project simulation
H: Eaton Canyon Park, Altadena (Segment 11)	None: New KOP	New simulation of Approved Project, showing darkened towers as required under Alternative 6 (i.e., the Approved Project).	Marker balls simulated onto Approved Project simulation
I: Tocino Drive at Royal Oaks Drive, Duarte (Segment 7)	KOP-South-1: Royal Oaks at Tocino Drive, Duarte, Final EIR Alternative 2, Figure 3.14-36b	Simulation of Approved Project, using Final EIR, Alternative 2, Figure 3.14-36b.	Marker balls simulated onto Approved Project simulation
J1: Greenbank Avenue, Duarte (Nighttime) (Segment 7)	None: New KOP	No simulation of Approved Project condition.	Use of nighttime field photography to show Modified Project condition; no simulation required
J2: Royal Oaks Drive, Duarte (Nighttime) (Segment 7)	None: New KOP	No simulation of Approved Project condition.	Use of nighttime field photography to show Modified Project condition; no simulation required
J3: Buena Vista Street, Irwindale (Nighttime) (Segment 7)	None: New KOP	No simulation of Approved Project condition.	Use of nighttime field photography to show Modified Project condition; no simulation required
K: Legg Lake, Whittier Narrows Recreation Area, Los Angeles County (Segment 7)	KOP-South-6: Legg Lake, Whittier Narrows, L.A. County, Final EIR, Alternative 2, Figure 3.14-41b	Approved Project mostly constructed. Simulation used to complete Approved Project condition.	Marker balls simulated onto the Approved Project simulation
L: Cargreen Avenue, Hacienda Heights (Segment 8, Phase 4)	None: New KOP	Simulation of Approved Project condition.	Marker balls simulated onto Approved Project simulation

Table 4.5-2. Modified Project KOP Locations Analyzed in this SEIR/SEIS

Key Observation Point	Corresponding KOP from Final EIR or Final EIS	Approved Project Simulation ¹ (Existing Condition)	Modified Project Simulation (Proposed Condition)
M: Crossroads Park, Carbon Canyon Road, Chino Hills (Segment 8, Phase 1)	Project Modification Report: Figure 3.13-3a & b	Simulation of Approved Project condition.	Simulation of Modified Project Condition
N: Morningfield Drive, Chino Hills (Segment 8, Phase 1)	None: New KOP	Simulation of Approved Project condition.	Simulation of Approved Project Condition
O: Bike Path near Edam Street, Chino (Segment 8, Phases 2/3)	None: New KOP	Simulation of Approved Project condition using Figure 3.13-11a from the Project Modification Report (SCE, 2011b).	Simulation of tower modifications using Figure 3.13-11b from Project Modification Report (SCE, 2011b)
P: South Archibald Avenue at Arabian Place, Chino (Segment 8, Phases 2/3)	None: New KOP	Simulation of Approved Project condition using Figure 3.13-12a from the Project Modification Report (SCE, 2011b).	Simulation of tower modifications using Figure 3.13-12b from the Project Modification Report (SCE, 2011b)

1 - Simulations do not show aviation lights, power sources for aviation lights, or chain link fencing and barb wire at the base of towers with ground-based power sources. Please refer to Figure 2.3-4 in Chapter 2, Section 2.3.2.2 for example photographs showing this equipment installed on an existing transmission structure.

For each KOP analyzed, an Approved Project condition and Modified Project condition image has been printed on 11-by-17-inch paper (provided at the end of this section). If the reader stands at the exact location of the KOP looking in the direction the photo was taken, each photograph and simulation will appear “life-size” when held approximately 18 inches away from the viewer’s eyes. In Sections 4.5.1.4.1 through 4.5.1.4.3 below, the existing condition is described for each KOP as though the Approved Project has been constructed. In the Impact Analysis (Section 4.5.3), the future visual effects of the Modified Project condition is evaluated at each KOP.

The Final EIR and Final EIS identified over 50 KOPs for the analysis of the Approved Project. Several of these same KOP locations have been simulated to evaluate the Modified Project (as documented in Table 4.5-2 above). To distinguish the Modified Project KOPs from the KOPs used in the Final EIR and Final EIS, an alphabetical ordering system is used for the KOPs instead of the numerical system used for the Final EIR and Final EIS. Table 4.5-2 above lists the Modified Project KOPs and cross-references those KOP locations from either the Final EIR and Final EIS or SCE’s Project Modification Report.

4.5.1.2 KOP Description Methodology for non-NFS lands: Visual Sensitivity (VS)

The same Visual Sensitivity/Visual Change (VS/VC) methodology used to describe the existing visual condition under the Approved Project in the Final EIR and Final EIS (Section 3.14.2.1) is used here for non-NFS lands which encompass the North and South Areas of the Project. The VS/VC methodology consists of comparing the visual sensitivity of the existing landscape considering the characteristics of existing visual changes apparent in the landscape (i.e., Approved Project), against the amount of visual change resulting from the Modified Project. Section 4.5.3.2 discusses the VS/VC methodology of assessing impacts. Descriptive text presented in the Final EIR and Final EIS has been repeated or paraphrased in the descriptions of KOPs and landscape units in this SEIR/SEIS in order to maintain

consistency between the Approved Project and Modified Project analyses. In the description of KOPs in Section 4.5.1.4 below, The VS aspects of the VS/VC methodology is evaluated based on the same three criteria as the Final EIR and Final EIS (Section 3.14.2.1) to determine an overall VS rating that ranges from high to low.

4.5.1.3 KOP Description Methodology for NFS lands: Scenery Management System

As described in the Final EIR and Final EIS (Section 3.14.2.1), the Forest Service's SMS is used to manage the visual resources of the ANF (Forest Service, 1995). The Forest Service's SMS methodology is also used here to evaluate the Modified Project and its effects on landscape aesthetics and visual quality in the ANF and to ascertain compliance with the Forest Plan (Forest Service, 2005a) for all NFS lands that would be crossed by the Modified Project, just as the SMS was used to evaluate the Approved Project. As stated above, descriptive text presented in the Final EIR and Final EIS has been repeated or paraphrased in the descriptions of KOPs and landscape units where relevant in this SEIR/SEIS in order to maintain consistency between the Approved Project and Modified Project analyses.

KOPs B through H inform the assessment of visual effects on NFS lands. However, due to the broad range of viewing conditions within the ANF, all the Center KOPs (KOP-Center-1 to KOP-Center-20) from the Final EIR and/or Final EIS are considered even though new simulations of the Modified Project were not prepared for most. On NFS lands, visual effects are determined specifically by the visual change that would occur in the context of visual sensitivity. Since the SMS does not call for an analysis of KOPs, KOPs are used to inform and aid the analysis, but not to determine the extent of visual change that would occur in the context of visual sensitivity.

In the Final EIS, Tables 2.6-5 and Table 3.14-5 (Alternative 6) detail mile-post (MP) segment changes in Forest Plan SIOs that would occur in Segment 6 and Segment 11 under the Approved Project. The same MP-by-MP analysis has been completed for the Modified Project in (Segments 6 and 11) of the ANF: because marker balls are meant to have a visible distance of 1,200 meters (approx. $\frac{3}{4}$ miles), for each MP segment, the visual effect of marker balls is extended $\frac{3}{4}$ mile out from the furthest marker ball location in the segment to determine the impact area. The $\frac{3}{4}$ -mile visual impact area extended out to fully encompass every MP segment. Considering that very little, if anything, can be done to mitigate the visual impacts caused by the addition of marker balls, the visual effect of the Modified Project, based on the MP segments analysis, was a one-level drop in SIOs from the Approved Project SIOs.

Scenic Integrity Objectives (SIOs) (Minimum Standard) and Existing Scenic Integrity Ratings

In order to define the degrees of deviation from the natural or natural-appearing landscape character that may occur at any given time, the Forest Service uses SIOs. SIOs represent the minimum standard of scenic integrity to which landscapes are to be managed. SIOs were established and mapped for the ANF in the Forest Plan. Scenic integrity is also used to inventory the existing condition of the landscape, which is referred to as "Existing Scenic Integrity" ratings and does not refer to a management objective as SIOs do. Definitions for SIOs can be found in Section 3.14.2.1 of the Final EIR and Final EIS.

Forest Plan Amendments associated with the Approved Project

As a result of the Forest Service's Record of Decision (ROD) for the Approved Project, Project-specific amendments were made to the Forest Plan (Part 3) for Standard S9. The Forest Plan standard requires:

S9: Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map.

The Forest Plan SIOs along Segments 6 and 11 are mapped as High and Moderate (see Figure 4.5-2). Even with implementation of visual mitigation measures, the Final EIS (Section 3.14) concludes that the TRTP would not meet these requirements. The ROD for the Approved Project includes Project-specific exceptions to these requirements. However, it is important to note that the ROD amendment does not alter the resulting Approved Project SIOs; it only allows an exemption from the Forest Plan standard for the Project.

4.5.1.4 Regional Landscape Setting

The Modified Project spans the same regional landscape setting (North, Center and South areas) as the Approved Project, with the omission of the northern portion of the Approved Project (Segments 4 and 10) and the southwest portion in Segment 11 (south of the ANF) because no marker balls are proposed within these Project segments and no aviation lighting would be installed, with the exception of aviation lighting on one structure near the Whirlwind Substation (Segment 10) which is addressed in the discussion of night lighting impacts. Table 4.5-1, above, shows the distribution of marker balls, aviation lights and KOPs by Project segment and landscape region. Also refer to Figures 2.1-1a through 2.1-1j for maps indicating spans requiring marker balls and structures requiring lights, as proposed under the Modified Project. No substantial changes have occurred to the overall regional setting; please refer to the Final EIS (Section 3.14.2.2).

4.5.1.4.1 North Area – Antelope Valley

Segments 4, 5, and 10 are located in the North Area of the Project. See Final EIR and Final EIS Section 3.14.2.2.1 for more description of the North Area. There are no Modified Project features in Segments 4 and 10, with the exception of one aviation light already installed near Whirlwind Substation. Therefore, the description of the North Area focuses on the landscape character of Segment 5, which spans an area between the Antelope Substation (west of Lancaster) and the Vincent Substation.

The Segment 5 landscape encompasses the eastern Sierra Pelona Ridge and the western edge of Antelope Valley. The rugged, dry, rolling hillsides of the Sierra Pelona Ridge provide a mountainous backdrop to the flat, expansive desert floor of the Antelope Valley. Hillside and native valley vegetation are generally low, dry, scrub and grasses. The Segment 5 landscape is rural in character with scattered residential and ranch developments, agricultural fields, and a one-mile grid of roads. Only near the western outskirts of Palmdale and Lancaster are there any areas of medium-to-high density residential uses, and some of these residential neighborhoods are continuing to build closer to the Segment 5 ROW. At the time of the Approved Project Final EIR and Final EIS, the planned developments of Ritter Ranch, Quail Valley, and the Anaverde Development had not yet been constructed. These developments are located adjacent to the Segment 5 ROW. Field reconnaissance in the spring of 2012 found that the Anaverde Development was partially built and occupied. The Ritter Ranch development

was graded, but had not been fully constructed. The Quail Valley annexation and development project was cancelled.

Crossing these rural and residential landscapes, there are several major T/L corridors, including the 500-kV LSTs of the Approved Project which range in height from 113 to 188 feet tall, having replaced older 220-kV LSTs in the same ROW. Overall, the Approved Project is noticeable, but not uncommon due to the existing transmission corridor that traverses this area.

Under the Modified Project there would be one tower with aviation lights at the Whirlwind Substation. In Segment 5, aviation lights would be placed on 11 towers and approximately 186 marker balls of yellow, white and orange color, placed on 26 T/L spans (averaging seven or eight balls per span) ~~in Segment 5~~. Most marker ball spans would consist of one or two consecutive spans (in a row) where the T/L crosses gullies or canyons in the vicinity of the California Aqueduct, Hacienda Ranch Road, Godde Hill, Elizabeth Lake Road and north of Vincent Substation. A longer stretch of 10 consecutive spans of marker balls would occur near the Anaverde Development and continue south along the Sierra Pelona Ridge with aviation lights accompanying most of the marked spans.

KOP-A: Bower Place at Paintbrush Drive (Anaverde Development), Palmdale (Segment 5)

KOP-A is located within Landscape Unit 3 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). Landscape Unit 3 encompasses the cities of Lancaster and Palmdale, and includes planned developments in varying stages of completion in areas at the western fringes of these communities. To date, Ritter Ranch and Quail Valley developments have not been built. Approximately 1,000 homes of the Anaverde Development, previously known as City Ranch, have been built under the first phase, with a planned build out of about 5,000 homes expected over five phases of development (Anaverde Home Owners Association, 2012).

KOP-A is located at the intersection of Bower Place and Paintbrush Drive in the newly constructed Anaverde Development, which is located west of Tierra Subida Avenue and West Avenue S in Palmdale. Figure 4.5-3a depicts the Approved Project condition and Figure 4.5-3b the Modified Project condition seen from KOP-A (located at the end of this section). KOP-A is typical of views from many different vantage points, including new residential streets in the Anaverde Development and other residential developments along the western edge of the valley and residential streets in Palmdale. The view from KOP-A is to the west, looking at the gently rolling hills of the Sierra Pelona Ridge. Vegetation is typical of the high desert, consisting almost exclusively of low grasses and scrub brush. The 500-kV towers of the Approved Project, and other T/Ls and towers, form a T/L corridor that traverses the base of the ridge, below which sits the newly occupied Anaverde Development.

- **Viewer Exposure: High.** Because there is no screening by landforms or vegetation, the marker balls associated with the Modified Project would be highly visible in the immediate foreground viewing distance (0-300 feet), but not readily noticeable in the middleground (0.5-3 miles), and not discernible from background distances. In the immediate foreground the marker balls can be sky lined, but as one moves east, into Palmdale, the marker balls would be seen against the grass-covered slopes of the Sierra Pelona Ridge. The duration of viewing for aviation lights and marker balls would be brief for motorists traveling in the area, and long for residents. The number of potential viewers would be high due to the close proximity of the Approved Project to existing residences.
- **Viewer Concern: High.** Visitors and residents experience a predominantly rural setting with panoramic sight-lines to the eastern end of Sierra Pelona Ridge in the City of Palmdale. Because many comments were received about visual impacts during scoping meetings for the Project, viewer concern is determined to be high.

- **Visual Quality: Moderate.** The primary focal points in this landscape are the transmission structures and lines with various structure designs and configurations of LSTs and TSPs. The Approved Project is located at a midslope location with views of T/Ls and structures seen both above and below the skyline. The overall visual quality of this portion of the Approved Project is moderate due to the prominence of the T/L structures.
- **Overall Visual Sensitivity: Moderate-to-High.** For residents and visitors in the vicinity of KOP-A, the high viewer exposure, high viewer concern, and low-to-moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

4.5.1.4.2 Center Area – San Gabriel Mountains/Angeles National Forest

Segment 6, and the northern portion of Segment 11 (referred to here as “Segment 11 (north)” between Vincent and Gould) are located in the Center Area of the Project as described in the Final EIR and Final EIS. From Vincent Substation, Segment 6 extends south, following the Angeles Forest Highway (N3) through a rural landscape of ranchettes and ranches into the ANF. Continuing south along the Angeles Forest Highway in the ANF, Segment 6 climbs steep rugged slopes within an existing T/L corridor through the San Gabriel Mountains: passing under the Pacific Crest National Scenic Trail (PCT) at Mill Creek, around the western base of Granite Mountain, across Big Tujunga Canyon, around Monrovia Peak, over Mount Bliss, out of the ANF and into the community of Duarte.

Segment 11 (north) heads south out of the Vincent Substation, veers west of Segment 6 into the San Gabriel Mountains where it crosses Aliso Canyon, the PCT, the eastern flank of Mount Gleason, and Big Tujunga Canyon before entering Gould Substation.

Within the ANF, chaparral shrub forest and oak woodlands dominate the lower elevations. Pine and fir-covered slopes prevail at higher elevations. Dense shrubs and tall conifer trees cover steep mountainsides leading down into narrow canyons, providing some vegetative and landform screening. Water features are mostly absent in this landscape, except along major rivers in canyon bottoms. Narrow, twisting, two-lane paved mountain roads wind through the ANF in a north-south direction (Angeles Forest Highway) and east-west direction (Angeles Crest Highway and Angeles Crest Scenic Byway). The Approved Project crosses over both of these highways at different locations.

Segments 6 and 11 of the Project occur in the Center Area. Approximately 65 percent of the Project alignment within Segments 6 and 11 on NFS lands (27.9 miles) was burned by the 2009 Station Fire. As is noticeable in many of the KOPs in the ANF, the fire consumed most of the vegetation in the burned areas. Most of what is visible now is a substantial amount of grass and shrub revegetation and bare soil, with remains of burned vegetation. The visual condition of the ANF, such as visual quality, landscape character, and vegetation characteristics, have been affected by the 2009 Station Fire to varying degrees. Burned areas are visible in foreground, middleground, and background distances from sensitive receptor locations. The Forest floor has become more visible because previously existing vegetation has burned. The fire removed screening vegetation, which has resulted in the exposure of many human-made structures within the ANF, including the Project’s T/Ls and other T/Ls, roads, ancillary buildings and structures. Mature trees and woodlands have been lost, recreational use areas have closed, and trails, animal paths, dump sites and debris that had been visually screened by previously existing vegetation is now visually evident.

The scenic condition of the ANF following the 2009 Station Fire will be in transition for years. The color of the landscape has changed from dark green, medium green, and tan, to predominantly light greenish-gray, as areas have “greened up” to a predominantly shrub ecosystem. Areas of the ANF that previously had tall trees (big cone Douglas fir, Jeffrey pine, cedar, coast live oak, canyon oak, or other

species) have been fully or partially burned and will not recover to pre-fire conditions for at least 50 to 100 years.

The Center Area now has a post-fire landscape character. Shrubs and grasses dominate the landscape, and human-made features such as the transmission corridors, tower pads and roads are more visible than they were prior to the Station Fire. The LSTs associated with the Project and other T/L corridors within the ANF are generally the tallest objects in the landscape, dwarfing the remaining vegetation. The structures have introduced geometric forms, angular lines, and an industrial landscape character in an otherwise natural-appearing landscape.

The Modified Project would be visible from numerous roads, trails, developed and undeveloped recreation use areas, and informal viewing locations such as road pullouts and vantage points in the Center Area. These use areas provide opportunities for scenic viewing and recreation opportunities for motorists, pedestrians, equestrian, bicyclists and off-highway vehicle (OHV) users. In general, there are few locations within the Center Area where the Modified Project would be completely screened from view due to topography, vegetation and the high level of recreation and transportation development within the ANF.

Under the Modified Project there would be four towers with aviation lights ~~would be installed on two transmission towers~~ in Segment 6 at the Vincent Substation, one of which has been installed and is lit. Within the ANF, Segment 6 would have sixty-eight spans with 596 marker balls (an average of eight to nine marker balls per span). In Segment 11 (north) there would be eight towers with aviation lights: four on the ridgeline south of the Vincent Substation and four in Aliso Canyon (two on NFS lands, two on private inholdings). Segment 11 (north) within the ANF, would have 51 spans with a total of 503 marker balls (an average of nine to ten marker balls per span). The existing condition for KOPs B through H is described below. Simulations of the Modified Project have been prepared for these KOPs, many of which correspond to KOPs from the Final EIS (see Table 4.5-2). Other KOP locations from the Final EIS are also considered (although new simulations depicting the effects of the Modified Project were not created) and can be found in the Final EIS.

KOP-B: Eastbound Aliso Canyon Road near Soledad Canyon Road (KOP-Center-1B) (Segment 11)

KOP-B is located in the Soledad Front Country Landscape Place, and Landscape Unit 5 which are described in detail in the Final EIS (Section 3.14.2.3). Most of this unit is located with the ANF, although in the northern portion there are private inholdings which are surrounded by NFS lands and are part of unincorporated Los Angeles County. Both Segments (Segment 11 – westerly and Segment 6 – easterly) pass through this landscape. This area is a transition zone between the lower elevations of the more highly developed Soledad Canyon – Antelope Valley area and the much less developed ANF. It includes a variety of terrain from rolling hills in the northern portion to steeper and more enclosed terrain in the southern parts. Elevations range from about 2,000 to 5,000 feet. The lower (northern) portions of the landscape unit are relatively open in appearance and include the bottoms of Aliso Canyon, Kentucky Springs Valley and Bear Canyon. The canyon bottoms contain streams (most of which are intermittent) and washes. Traveling south through this area on the Angeles Forest Highway or Aliso Canyon Road brings viewers into steeper, higher, and more rugged terrain. Vegetation is composed of shrubs of varying sizes (mixed chaparral), which is present on most slopes and is seen as patterns of dense patches with large openings. Coniferous trees such as pine and juniper were once seen at higher elevations, but most of this vegetation type was destroyed in the Station Fire.

KOP-B is located in Landscape Unit 5 and is the same as KOP-Center-1B from the Final EIS. KOP-B is located on eastbound Aliso Canyon Road approximately 0.5 mile from Soledad Canyon Road. The view is to the southeast where rural development associated with private inholdings is seen in the foreground and the T/Ls in the middleground. Aliso Canyon Road is a less-used entrance to the ANF by Forest visitors, and is used by the local residents that live in the area. Four separate T/Ls cross Aliso Canyon in the middleground and ascend the north-facing undeveloped slopes to the south. Scenic hillsides of the ANF surround the canyon and dominate background views. Figure 4.5-4a depicts the Approved Project condition and Figure 4.5-4b the Modified Project condition seen from KOP-B (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the entire landscape in this vicinity is classified as High SIO. Management direction states that human activities should not be visually evident. Human caused deviations may be present but must repeat the form, line, color, texture and pattern common to the natural landscape character so completely and at such a scale that they are not evident. The Desired Condition is a naturally appearing area that functions as a scenic backdrop and transitional landscape.
- **Existing Scenic Integrity: High, with Areas of Unacceptably Low.** NFS lands visible from Aliso Canyon road (KOP-B [Center-1B]) are predominantly natural-appearing, consisting of middleground views of brush-covered hillsides. The vegetation is finely-textured brushfields with many hues of dark- and medium-green colors. The landscape exhibits a high degree of intactness and coherence of form and character with a moderate amount of visual variety. However, this harmony of form and character is interrupted from left to the right skyline by the geometric forms of four separate T/Ls and towers with the Segment 11 alignment crossing this landscape from left to right and exiting the photo on the upper right skyline. Two additional T/Ls exit the middle right side of the view. The transmission towers have a landform backdrop and only two of the towers visually intrude on the skyline. The transmission corridor appears heavily altered and strongly dominates the surrounding landscape character. Overall, the existing scenic integrity of this NFS landscape is high, with little or no deviations of form, line, color, texture, or scale. Along the utility corridor, however, middleground and foreground views begin to be dominated, except for by the geometric transmission towers and horizontal conductors which do not borrow from the valued attributes of the characteristic landscape due to their inherent industrial character and disproportionately large scale. These conditions reduce the existing utility corridor landscape to an unacceptably low level of scenic integrity.

KOP-C: Northbound Angeles Forest Highway near Mill Creek Summit (KOP-Center-2) (Segment 6)

The view from KOP-C is located in the Soledad Front Country Landscape Place and is looking into Landscape Unit 5, both of which are discussed above under KOP-B. KOP-C is the same as KOP-Center-2 from the Final EIS. KOP-C is located on the northbound side of Angeles Forest Highway approximately 0.5 mile south of the intersection with Aliso Canyon Road and one mile north of Mill Creek Summit. The view from KOP-C is looking north, out and down across the Soledad Front Country and Landscape Unit 5. Transmission towers and lines associated with Segment 6 are seen in a linear, receding line that extends from the immediate foreground into the middleground. Figure 4.5-5a depicts the Approved Project Condition and Figure 4.5-5b the Modified Project condition seen from KOP-C (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the entire landscape in this vicinity is classified as High SIO, as defined above under KOP-B.
- **Existing Scenic Integrity: High, with Areas of Unacceptably Low.** Although the immediate foreground is dominated by the highway itself, NFS lands visible from the Angeles Forest Highway (KOP-C [Center-2]) are predominantly natural-appearing, consisting of middleground and background views to brush-covered hillsides and rounded landforms that contain and en-frame the overall composition. The vegetation is finely textured brushfields with many hues of dark- and medium-green colors and tan-colored, grassy mountainsides in the background. The landscape exhibits a high degree of intactness and coherence of form and character with a moderate amount of visual variety. However, this harmony of form and character is interrupted on the skyline

by the geometric forms of T/L towers that are extremely dominant and begin to break apart the natural and natural-appearing landscape character. Overall, the existing scenic integrity of this NFS landscape is high, with very few deviations of form, line, color, texture, or scale. However, the size and scale of existing transmission towers, with their inherent industrial character, combined with the consistent foreground view exposure to the public along Angeles Forest Highway, result in excessive alterations that contrast to the natural-appearing landscape character. This reduces the utility corridor areas of the landscape to levels of unacceptably low scenic integrity.

KOP-D: Southbound Upper Big Tujunga Canyon Road (KOP-Center-6) (Segment 6)

KOP-D is located in the Angeles Uplands West Landscape Place and Landscape Unit 7 which are described in detail in the Final EIS (Section 3.14.2.3). This area of the ANF is crossed by both Segment 11 and Segment 6 in a north-south direction. Most of State Route 2 – Angeles Crest Scenic Byway is located in this Landscape Place. Segment 11 passes immediately adjacent to Big Tujunga Reservoir and Segment 6 is located immediately adjacent to the southwest corner of the San Gabriel Mountain Wilderness. Elevations in this area of the ANF range from approximately 2,500 to 6,300 feet. Slopes are steep with sharp rounded summits and deep narrow canyons. There is considerable diversity in vegetation between the north- and south-facing slopes and along shaded slopes and canyons. Human influence is most apparent in the developed and dispersed recreation facilities and travel ways, and the many utility service infrastructures that support the greater Los Angeles urban area, and several county roads and state highways that serve as major high-speed commuter routes from inland valleys and desert to the Los Angeles Basin.

KOP-D is located on the Upper Big Tujunga Canyon Road, approximately two air miles north of the Angeles Crest Scenic Byway. KOP-D is the same as KOP-Center-6 from the Final EIS. The Segment 6 T/L of the Approved Project and another T/L would be visible in the middleground as they cross the mid-slope landscape, ranging in viewing distance from about 0.5 mile to 1.0 mile away. Viewing duration is long for highway users as there are multiple viewing opportunities toward Segment 6 from various vantage points along the road. Viewers are generally not commuters, and therefore Forest visitors in this vicinity would be expected to have high concern for the scenery. Human-made objects visible from this KOP would be the road in the immediate foreground, darkened LSTs associated with the Approved Project, and gray LSTs seen in the middleground landscape back-dropped by the higher elevations of Vetter Mountain in the distance. The rest of the landscape view appears intact and has a natural-appearing landscape character. A variety of vegetation including chaparral shrubs and conifer stands can be seen in the canyon and on adjacent slopes. Figure 4.5-6a depicts the Approved Project condition and Figure 4.5-6b the Modified Project condition seen from KOP-D (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the entire landscape in this vicinity is classified as High SIO, as defined above under KOP-B.
- **Existing Scenic Integrity: High, with Areas of Unacceptably Low.** The landscape visible from Upper Big Tujunga Canyon Road in general, and KOP-D (KOP Center-6) specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes that have been extensively burned by the Station Fire. Formerly, these were dense, dark green chaparral and evergreen tree-covered mountainsides. The sun angle and shadows emphasize the ruggedness of the slopes and folded terrain, and the LSTs and conductors of three parallel T/Ls. The natural landscape has a coherent form and character with substantial visual variety created by the rugged, folded terrain and moderate slopes. The natural landscape exhibits a high degree of intactness and scenic integrity, but the burned vegetation exposes more of the existing T/Ls and makes them more prominent in the viewshed. The existing T/L structures, access road and cutslopes are discordant elements that are extremely dominant in the context of the natural scenic character. Although not clearly captured in the image, throughout the day the utility corridor appears excessively altered and creates a

~~rift breaks in the natural apart the inherent~~ landscape character resulting in an unacceptably low level of scenic integrity.

KOP-E: Vetter Mountain Lookout (KOP-Center-8) (Segment 6)

KOP-E is located in the Angeles Uplands West Landscape Place and Landscape Unit 7 which are described above under KOP-D. KOP-E is the same as KOP-Center-8 from the Final EIS. KOP-E is located at what was the Vetter Mountain Lookout until it burned down in the Station Fire in 2010. The Lookout is a National Scenic Byway destination, located at an elevation of approximately 5,890 feet and is accessible to visitors by foot (1.1- to 1.3-mile hike one-way from the Angeles Crest Scenic Byway). The view from KOP-E is to the southwest toward the Mount Wilson electronic site on the distant skyline. Viewing duration is long and Forest visitors are expected to have a high concern for scenery. This view encompasses upper Big Tujunga Canyon and adjacent mountains, much of which was burned in the Station Fire resulting in the lower canyon slopes appearing barren. There is some variety of vegetation on the upper canyon slopes that include chaparral shrubs and few patches of conifer stands. The Approved Project T/L with darkened towers, and a parallel T/L are seen about 1.25 to 1.50 miles away and cross over the Angeles Crest Scenic Byway near the center of the view and descend off the ridgeline and across the slope to the right. Cut slopes of the highway and a few smaller cut slopes of the Upper Big Tujunga Canyon Road are also visible below the lookout. Figure 4.5-7a depicts the Approved Project condition and Figure 4.5-7b the Modified Project condition seen from KOP-E (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the entire landscape in this vicinity is classified as High SIO, as defined above under KOP-B.
- **Existing Scenic Integrity: High, with Areas of Unacceptably Low.** The landscape visible from the former Vetter Mountain Lookout (and Charlton Flats) in general, and KOP-E (KOP-Center-8) specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes that have been burned by the Station Fire, with dense, dark green evergreen tree-covered mountainsides in the background. There are interesting vegetative patterns in this landscape view that are created by the folded terrain, but because of the fire there is a dramatic visual change in the landscape. In addition, the historic lookout tower was completely burnt in the Station Fire. The sun angle and shadows emphasize the ruggedness of the steep slopes and broken terrain. The natural landscape has a coherent form and character with substantial visual variety created by the rugged, folded terrain. On the skyline, electronic facilities at Mount Wilson are visible and attract attention. On the midslope, due to the loss of vegetative screening, the existing conductors and towers in the utility corridor, as well as the highway cut slopes, exposed access roads, and spur roads are extremely dominant and break apart the natural landscape. Overall, the natural landscape exhibits a high degree of intactness and scenic integrity, but the visually discordant human-made features within the utility corridor are excessive alterations that dominate the natural scenic character of the landscape, leading to an unacceptably low level of scenic integrity within the utility corridor.

KOP-F: Pacific Crest Trail near Mount Gleason (KOP-Center-14) (Segment 11)

KOP-F is located in the Angeles High Country Landscape Place and in Landscape Unit 6. Landscape Unit 6 begins approximately above the intersection of Angeles Forest Highway and Aliso Canyon Road, continues up and over the northern crest of the San Gabriel Mountains. The Angeles High Country Landscape Places encompasses Segments 6 and 11, both of which cross the PCT in Landscape Unit 6.

Landscape Unit 6 and the Angeles High Country Landscape Place, in the vicinity of KOP-F generally has a natural appearance. Human-made features that are visible to the general public include Angeles Forest Highway, Forest Service facilities (buildings, storage, parking, picnic area) at Mill Creek Summit, Mount Gleason Road, Camp Louis Routh Camp 5 (a Los Angeles County Department of

Corrections facility), communication towers on Mount Gleason, utility corridors, fuel breaks, unpaved Forest roads, trails, and campgrounds. This area is characterized by steep slopes with sharp to rounded summits surrounding small alpine valleys. There are areas of forested (tree-covered) environments. The primary viewers of this area are recreationists or people driving through it to reach attractions in the Forest or locations beyond it. Recreationists are considered to have a high concern for scenery and people driving through the unit are generally either commuters with low-to-moderate concern levels or people driving for pleasure who would have a moderate-to-high level of concern.

KOP-F is the same as KOP-Center-14 from the Final EIR and Final EIS. KOP-F is located on the PCT, just north of Mount Gleason Road and just west of Big Buck Campground. The view is to the north, toward two parallel T/Ls. Segment 11 crosses the PCT at approximately Mile 7.6. This KOP characterizes the view of the Project that hikers and equestrians on the PCT would experience. Figure 4.5-8a depicts the Approved Project condition and Figure 4.5-8b the Modified Project condition seen from KOP-F (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the entire landscape in this vicinity is mapped as High SIO, as defined above under KOP-B.
- **Existing Scenic Integrity: High, with Areas of Unacceptably Low.** The landscape visible from the PCT (KOP-F [Center-14]) is predominantly natural-appearing, consisting of a foreground and middleground landscape that has been completely burned by the Station Fire. Prior to the fire, this landscape was covered with dense, dark green Douglas fir, oak, and pine trees on north-facing slopes and chaparral shrubs with widely scattered pine trees on south-facing slopes, creating a mosaic of patterns scattered across these steep mountainsides. Now remains of burnt vegetation dot the landscape and dominate the foreground. The natural landscape exhibits a high degree of scenic integrity except for the T/Ls, towers, access and spur roads leading to the existing towers, and tan colored cut slopes that have heavily altered the characteristic landscape of the utility corridor. Under post-fire conditions, when viewed for long durations in the foreground or middleground, as when hiking on the PCT, the existing T/L towers are very evident as vertical, angular structures that create glint in the sunlight and contrast with the natural landscape. These features are extremely dominant and detract attention from the harmony of the natural form and character of the landscape, especially transmission towers that are in the foreground or are silhouetted against the skyline in the middleground. These discordant elements do not borrow form, line, color or texture from the natural-appearing landscape, resulting in an unacceptably low level of scenic integrity within the utility corridor.

KOP-G: Northbound Angeles Forest Highway above Tujunga Reservoir (KOP-Center-17) (Segment 11)

KOP-G is the same as KOP-Center-17 from the Final EIS. KOP-G is located in the Angeles Uplands West Landscape Place and Landscape Unit 7 which are described above under KOP-D. KOP-G is located on the Angeles Forest Highway, approximately three miles north of its intersection with the Angeles Crest Scenic Byway as seen by people driving north and down into Big Tujunga Canyon on their way to Palmdale, Lancaster, and the Antelope Valley. Travelers experience middleground and background views of Segment 11 as it stair-steps up the slopes towards Mount Gleason. Viewing duration of the Project from this location is short for drivers, as they tend to focus on the sinuous road, but long for people who exit their vehicles and walk around to look at the landscape from the numerous pullouts along the road. Two types of users travel this road: commuters and recreationists. It is assumed that commuters have some regard for scenic values, but in general, may have only a low-to-moderate concern level. Recreationists, on the other hand, are generally driving for pleasure and have a high concern level. In the foreground of KOP-G existing marker balls can be seen on the T/L spans not associated with the Project. While the marker balls can be seen with concentrated effort by viewers stopping at one of the pullouts, the existing spans of marker balls are in the lower portion of the view and are not noticeable to the casual observer traveling on the road. Figure 4.5-9a depicts the Approved

Project condition and Figure 4.5-9b the Modified Project condition seen from KOP-G (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the entire landscape in this vicinity is mapped as High SIO as described above under KOP-B.
- **Existing Scenic Integrity: High, with Areas of Very Low.** The landscape visible from the Angeles Forest Highway in general, and KOP-G (Center-17) specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes that have been extensively burned by the Station Fire. Formerly, these mountainsides were covered with interesting patterns of dense, dark green chaparral. The folded terrain and shadows create interesting patterns in this landscape view. The natural landscape exhibits a high degree of intactness and scenic integrity, except for deviations associated with two parallel T/Ls that heavily alter the high scenic integrity. The T/Ls appear as highly discordant structures that strongly dominate the valued landscape character, leading to a very low level of scenic integrity within the utility corridor.

KOP-H: Eaton Canyon Park, Altadena (Segment 11)

KOP-H is located in the Front Country Landscape Place and Landscape Unit 8, which consist of the San Gabriel Mountain foothills which serve as a part of the scenic backdrop for the greater Los Angeles area. Both Segment 11 (to the west) and Segment 6 (to the east) pass through this Unit. The San Gabriel Mountains rise dramatically from the Los Angeles Basin from an elevation of approximately 300 feet to an elevation of approximately 6,000 feet. The area is easily accessible from various points along the Interstate 5, 15, and 210 travel corridors. The trails through the Front Country offer Forest visitors dramatic urban panoramas and views of rugged mountains. The Front Country includes steep slopes with sharp to rounded summits and deep narrow canyons. The steeper reaches of the slopes are typically barren and highly eroded. Canyons are characteristically steep with rocky sides and are often strewn with large boulders. Perennial water is present only in the largest creeks and rivers. Chaparral is the most dominant plant community. Canyon and coast live oaks grow along the shaded slopes of canyons. The cultural landscape of this Place is generally characterized by urban influences resulting in a modified character in many areas. This Place has numerous electronic and communication sites located on ridgelines and mountain tops. Many of the utility corridors that support the Los Angeles Basin are located in this Place, as well as flood control structures and dam facilities. The Front Country Place is viewed by the residents of adjacent communities as their backyard. Many areas near this Place (but outside of the ANF) are heavily developed. They include vast stretches of subdivisions and residential and commercial areas.

KOP-H is a new KOP that was not previously evaluated for the Approved Project. KOP-H is located in Eaton Canyon Park at the north end of the parking lot, near the main trailhead. This KOP is representative of a variety of viewers because of its proximity to urban areas. The most sensitive viewers would likely be residents living closest to Segment 11 and recreationists hiking on the trails, picnicking, and participating in other activities in Eaton Canyon Park. People driving roads in the area are more likely to have different levels of concern, ranging from low, to moderate, to high. Figure 4.5-10a depicts the Approved Project condition and Figure 4.5-10b the Modified Project condition seen from KOP-H (located at the end of this section).

- **Forest Plan SIO: High.** In the 2005 Forest Plan, the ANF lands seen from this KOP, which itself is located outside of the ANF, is mapped as High SIO as described above under KOP-B.
- **Existing Scenic Integrity: High with Areas of Very Low.** The view of the Front Country landscape from Eaton Canyon Park specifically (KOP-H), and the southern edge of the ANF in general, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes of steep rugged slopes climbing dramatically out of the valley floor. The rugged slopes have a highly textured landscape mosaic of mottled, dark green chaparral leading upward to a jagged skyline. The natural landscape exhibits a high degree

of intactness and scenic integrity, except for the discordant T/L towers and conductors that span the visible length of this Front Country view at midslope. The parallel towers and conductors create a strong horizontal line across the landscape that appears heavily altered in the landscape. The T/Ls and towers borrow little from the form, line, color, texture, pattern and scale of the surrounding characteristic landscape, resulting in a very low level of scenic integrity within the utility corridor.

4.5.1.4.3 South Area – San Gabriel Valley, Puente Hills and Inland Empire

Segment 7, Segment 8, and the southern portion of Segment 11, referred to as “Segment 11 (south)” are located in the South Area of the Project. See Final EIR and Final EIS Section 3.14.2.2.4 for more description of the South Area. Segment 7 extends from the ANF boundary at Duarte to the City of Industry where there would be 24 towers with aviation lights, and 37 spans with a total of 253 marker balls (an average of six to seven marker balls per span). Segment 8 extends from the City of Industry to the City of Chino. Within Segment 8 there would be 44 towers with aviation lights and 81 spans with marker balls with a total of 629 marker balls (an average of seven to eight marker balls per span). Segment 8 is further subdivided into four geographical phases of development. Segment 8, Phase 4 extends from the City of Industry to Hacienda Heights; Segment 8, Phase 1 extends from Hacienda Heights to Chino Hills; and Segment 8, Phases 2 and 3 extend from Chino Hills to the Mira Loma Substation in Ontario. There are no aviation lights or marker balls proposed to be installed in Segment 11 south of Eaton Canyon Park under the Modified Project, therefore this segment of the Project is not discussed further in the analysis.

The South Area is defined by the urban and suburban areas of Los Angeles and San Bernardino Counties. Topography ranges from flat valley floors of the San Gabriel Valley and Inland Empire to the rolling and steep hillsides of the San Jose and Puente Hills. Natural drainages are almost non-existent, as most urban rivers and streams have been modified with concrete channels. Vegetation is both low-growing native grasses and shrubs, or culturally introduced street-tree plantings and residential/commercial landscaping. Urban infrastructure, including freeways, existing T/Ls, electric substations, drainage channels, plus single-story and multi-story buildings dominates the South Area. A multitude of viewing opportunities of the Approved Project is provided by the numerous freeways, State highways, arterial roads, and literally thousands of residential streets in these urban and suburban areas. Additionally, many county, city, and regional parks and trails offer viewing opportunities.

The State has designated portions of the Orange Freeway (State Highway 57) as “Eligible” to become a State Scenic Highway where it traverses largely undeveloped hills between Brea and Diamond Bar, and under the Modified Project there would be marker balls on the spans over State Highway 57 in this vicinity. Colima Road, Hacienda Road, and Harbor Boulevard are proposed as scenic corridors in the County of Los Angeles General Plan. Los Angeles County has designated several other roads as Priority Two Scenic Highways, also indicating a high sensitivity for scenic integrity of landscapes. Portions of I-210 and State Routes 39 and 57 are either designated as, or eligible for, State Scenic Highway status. Portions of the Modified Project would be visible from these roadways.

Under the Modified Project, aviation lights and marker balls would be added to some towers and spans within Segments 7 and 8. In Segment 7, the aviation lights would be spread out in somewhat equidistant stretches of four or less lighted towers in a row. Spans of marker balls would generally be located in the vicinity of those towers with aviation lights. In Irwindale south of Duarte, and at the Whittier Narrows Recreation Area there would be stretches of marker ball spans with up to six sequential span lengths in a row. Other areas would have between one and four sequential spans of marker balls,

including at: Duarte, USACE lands south of Duarte, Rio Honda, Baldwin Park, Whittier Narrows Recreation Area, and Montebello.

In Segment 8, there would be up to 44 transmission structures with aviation lights. Between Montebello and Chino Hills there would be 10 transmission structures with aviation lights; one tower would be in Montebello, six concentrated on USACE lands next to I-605, two (non-sequential towers) in La Habra Heights, and one in Rowland Heights. There would be no aviation lights through Chino Hills. The vast majority of the aviation lights (34) would be located on towers east of Chino Substation as the Project approaches Mira Loma Substation. Segment 8 would have a total of 81 spans with a total of 629 marker balls (an average of seven to eight balls per span). There would be marker balls on the majority of the spans between Montebello and Chino. There would be 62 spans of marker balls between Monterey Park and Highway 57 in Diamond Bar (Segment 8, Phase 4), and 19 spans between Highway 57 and Chino (Segment 8, Phase 1). No marker balls are proposed on spans through Chino and Ontario (Segment 8, Phase 2 and 3).

KOP-I: Tocino Drive at Royal Oaks Drive, Duarte (KOP-South-1) (Segment 7)

KOP-I is located in Landscape Unit 9 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). Unit 9 is bounded on the north by the southern border of the ANF, on the south by the Foothill Freeway (I-210), and extends approximately one mile east and west of the transmission corridor. This landscape contains the developed areas of Duarte, an eastern portion of Bradbury, and a small portion of Irwindale north of the I-210. The terrain within this landscape unit is generally flat in its central and southern areas. Moderate slopes are present in the northern residential areas, with steeper slopes to the north in the undeveloped foothills of the San Gabriel Mountains leading up to the southern boundary of the ANF. Development within the landscape unit consists primarily of single-family residential neighborhoods, where some of these lie adjacent to the transmission corridor. Commercial development is concentrated along Huntington Drive. As is typical for many of SCE's transmission corridors, several nurseries are present within the ROW itself. The Rancho Duarte Golf Course is located within and around the transmission corridor north of Huntington Drive, and the Avila Gardens Residence for senior citizens is located immediately south of the golf course and adjacent to the transmission corridor. Some industrial land uses are present south of Huntington Drive near the San Gabriel River channel and immediately north of the I-210. A residential neighborhood is also present south of Huntington Drive and west of the transmission corridor. There are no scenic highways within the landscape setting for KOP-I. Vegetation in this cultural landscape consists of a variety of planted deciduous trees, palm trees, various shrubs, and grass lawns. Native chaparral evergreens dominate the undeveloped San Gabriel Mountains to the north. The most visually dominant features in this landscape unit are the San Gabriel Mountains to the north and the two sets of electric transmission towers and conductors that define the central axis of the landscape unit.

KOP-I is the same location as KOP-South-1 from the Final EIR and Final EIS where more detailed information can be found. KOP-I represents views of the Project as seen from generally level terrain looking north and upward toward the San Gabriel Mountains along the Approved Project transmission corridor in Segment 7. Viewers from this KOP include residents with static views from their homes, and pedestrians, bicyclists, and motorists traveling on the area's streets. Foreground views from this KOP include houses, a paved street, parked automobiles, grass lawns, shrubs, a wide variety of trees, some residential overhead utility wires, and a TSP and LST tower with conductors associated with the Approved Project in the immediate foreground. The middleground view contains the San Gabriel

Mountains with chaparral evergreen vegetation, which are natural-appearing and relatively untouched. Pairs of transmission structures, and associated conductor are visible in the middleground view, stepping up the mountain hillside. The transmission corridor on the left is the Approved Project, the one on the right is not. The LSTs associated with both of these transmission corridors are visually evident, especially the pairs of towers that are exposed above the skyline. Figure 4.5-11a depicts the Approved Project condition and Figure 4.5-11b the Modified Project condition as seen from KOP-I (located at the end of this section).

- **Viewer Exposure: High.** The Modified Project would be highly visible from these residential properties because of the T/L spans that cross directly behind existing houses at immediate foreground viewing distances. As seen from these neighborhoods, the Approved Project would be highly visible on the barren slopes of the San Gabriel Mountains seen in the middleground viewing distance. The duration of view would be extended from these residential neighborhoods, and the number of potential viewers would be moderate-to-high. Therefore, the overall viewing exposure would be high.
- **Viewer Concern: High.** Viewers in this area consist primarily of neighborhood residents in single-family homes on neighborhood streets, golfers, and nearby residents. The level of viewer sensitivity is high.
- **Visual Quality: Moderate-to-High.** The overall visual quality for KOP-I is moderate-to-high. The slopes and high ridgeline of the San Gabriel Mountains provide a dramatic and attractive backdrop to this residential view, and the vegetation (particularly the contrasting mix of palm and deciduous trees) provides an element of special visual interest. The visual intactness of the residential area is average, although the transmission structures encroach upon the foreground view. The visual unity of the residences and streetscape is moderately high; the landforms, vegetation and residential structures fit well together. However, the scale and geometric forms of the transmission structures contrast strongly with these other visual elements, and the industrial-character of these structures protrude above the skyline in both the foreground and middleground, creating additional contrasts. Without the T/Ls in this view, this landscape would exhibit high visual quality, but the introduction of these towers and conductors has lowered the visual quality to a moderate-to-high level.
- **Overall Visual Sensitivity: High.** For residents of Duarte in general and KOP-I specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality leads to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-J1 and KOP-J2: Greenbank Avenue/Royal Oaks Drive, Duarte (Nighttime Views) (Segment 7)

KOP-J1 and KOP-J2 are located in Duarte, in Landscape Unit 98, which is described above under KOP-I, and in detail in the Final EIR and Final EIS (Section 3.14.2.3). KOP-J1 and KOP-J2 are ~~new KOP locations~~ located near KOP-I and that were selected to depict representative nighttime views of the aviation lights that would be seen on structures under the Modified Project, as aviation lighting has already been installed on Towers M27-T4 and M54-T3A in this area Duarte. KOP-J1 is located on Greenbank Avenue, about 0.40 aerial miles northeast of KOP-I (Tocino Drive). KOP-J2 is located on Royal Oaks Drive, 0.07 miles east of KOP-I. The view is limited from these KOPs due to the nighttime condition.

KOP-J1 is located near the top (north) end of Greenbank Avenue where the road veers left (west) and ends at the Project ROW of Segment 7. The nighttime view from KOP-J1 is to the northwest where there is a residence, behind which are two towers with aviation lights in the immediate foreground. KOP-J1 is representative of the nighttime views that would be experienced by residents near the ROW.

KOP-J2 is located under the ROW as it crosses Royal Oaks Drive, on the south side, with the view orientation to the north into the Segment 7 ROW. The view is predominantly of the lighted towers in the immediate foreground due to the nighttime conditions and is representative of the views that would be experienced by nearby residents. Figure 4.5-12a depicts the existing nighttime condition from KOP-J1 and Figure 4.5-12b the existing nighttime condition from KOP-J2 (located at the end of this section).

- **Viewer Exposure: High.** The Modified Project would be highly visible from nearby residences because the lighted towers are directly behind or adjacent to existing homes at immediate foreground viewing distances. The duration of view would be extended from these residential neighborhoods, and the number of potential viewers would be moderate-to-high. Therefore, the overall viewing exposure would be high.
- **Viewer Concern: High.** Viewers in this area consist primarily of neighborhood residents in single-family homes on neighborhood streets. The level of viewer sensitivity is high.
- **Visual Quality: Moderate-to-High.** Most of the landscape is not visible due to the nighttime viewing conditions for these KOPs. However, the overall visual quality is considered to be consistent with day time conditions, and therefore has a moderate-to-high level of visual quality as defined above under KOP-I where the landscape maintains visual intactness and unity.
- **Overall Visual Sensitivity: High.** For residents of Duarte in general, and KOPs J1 and J2 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality leads to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-J3: Buena Vista Street, Irwindale (Nighttime View) (Segment 7)

KOP-J3 is located near Buena Vista Street, northeast of the United Rock Products facility in Irwindale. This nighttime KOP is located in Landscape Unit 10: I-605 Corridor. The Final EIR and Final EIS describes this Landscape Unit in detail (Section 3.14.2.3). The landscape unit is bounded on the north by the Foothill Freeway (I-210), on the south by the Pomona Freeway (Highway 60), and extends approximately one mile east and west of the transmission line corridor. Landscape Unit 10 is centered along the San Gabriel River Freeway (I-205) corridor and the San Gabriel River channel, which generally runs north-to-south. The transmission corridor generally parallels the river and freeway, with the conductors crossing the river and freeway at some locations. The most visually dominant features are the I-605, the San Gabriel River and the electric transmission towers and conductors. Vegetation within Landscape Unit 10 consists of shrubs, trees and grasses near the San Gabriel River channel, other trees, shrubs and grasses at various locations along the corridor, and several nurseries within SCE's ROW. Development consists primarily of freeway structures and industrial facilities, including several large gravel quarry facilities. Residential neighborhoods are present to the east and west of the transmission corridor, but these are somewhat visually isolated from the transmission towers and conductors by the intervening freeway and river. Viewers of the transmission corridor include motorists on I-605, residents living in proximity to the corridor, and pedestrians, bicyclists and motorists traveling on nearby surface roads. Given the utilitarian nature of this freeway corridor and the high travel speeds, the visual sensitivity of the roadway travelers is considered to be moderate, at most. There are no designated State or local scenic highways located within Landscape Unit 10.

KOP-J3 was selected to represent the relative brightness of aviation lights when seen from a more distant location than that of KOPs J1 and J2. KOP-J3 is located approximately three miles south of the two currently lit towers in Duarte (M27-T4 and M54-T3A) near Buena Vista Street in Irwindale. With implementation of the Modified Project, a total of seven lit towers would be seen in this view: Tower M27-T2 would be about a half mile north of Towers M27-T4 and M54-T3A in Duarte, and less than one mile away four additional towers (M29-T4, M29-T5, M30-T1, and M30-T2) would be seen in this view.

- **Viewer Exposure: High.** The Modified Project would be highly visible due to the flat terrain and low profile development in the area. The duration of view would be extended from surrounding areas, and the number of potential viewers would be high due primarily to traffic volumes on I-605. Therefore, the overall viewing exposure would be high.

- **Viewer Concern: Low-to-Moderate.** Viewers in this area consist primarily of I-605 motorists and industrial workers. The level of concern could range from low for industrial workers and many motorists, to moderate for motorists that would have a higher level of concern for the visual quality of the San Gabriel River Valley.
- **Visual Quality: Low.** Most of the landscape is not visible due to the nighttime viewing conditions for these KOPs. However, the overall visual quality is considered to be consistent with day time conditions, and therefore has a low level of visual quality due to the dominating presence of transmission lines and towers that cross through this area.
- **Overall Visual Sensitivity: Moderate.** For workers and motorists in this area, the high viewer exposure, low-to-moderate viewer concern, and low visual quality leads to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-K: Legg Lake, Whittier Narrows, Los Angeles County (KOP-South-6) (Segment 7)

KOP-K is located in Landscape Unit 13 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). This landscape unit extends from San Gabriel Boulevard on the west, to the I-605 on the east and is a highly developed industrial, residential and outdoor recreation area. Whittier Narrows is a flood control basin which includes Legg Lake and other recreation facilities under the jurisdiction of the USACE. There are two Approved Project T/L corridors within Landscape Unit 13: the Segment 7 corridor travels east-to-west across the middle portion of Landscape Unit 13; and Segment 8 (Phase 1) travels west-to-east across the southern portion the unit. At the very western end of the landscape unit, Segments 7 and Segment 8 (Phase 1) are located within the same transmission corridor.

Views throughout Landscape Unit 13 include the presence of the existing transmission corridors. Multiple existing T/Ls are common throughout this unit within the foreground, middleground, and background viewing distances. Within the flood basin floor, views are restricted to the foreground and middleground due to the presence of the native plants and landscape plantings. Views include adjacent low lying hills east and west of the basin floor in the background and are available from the western and eastern boundaries of the landscape unit. Sensitive viewers include recreational users of the Whittier Narrows Recreation Area and people driving throughout the landscape unit. The level of visual sensitivity varies by type of viewer and view duration and exposure, but is generally considered to be moderate-to-high, given the large amount of acreage devoted primarily to recreational use within the flood control basin.

KOP-K is the same location as KOP-South-6 from the Final EIR and Final EIS. The KOP-K is located off of Rosemead Avenue, at Legg Lake Park, on the western shore of the lake. The view from KOP-K is to the southeast looking at the Segment 7 transmission corridor. The foreground of this KOP contains maintained park lawns and landscaping and the waters of Legg Lake. Picnic areas under the T/Ls include picnic tables on concrete pads, barbecue facilities, trash receptacles, lawns and native and non-native trees. Figure 4.5-13a depicts the Approved Project condition and Figure 4.5-13b the Modified Project condition as seen from KOP-K (located at the end of this section).

- **Viewer Exposure: High.** The Modified Project would be highly visible from this recreational park at Legg Lake, as there is no topographic screening, and vegetative screening is shorter than the most of the T/Ls seen from KOP-K. Viewing distance to the T/L is foreground and immediate foreground from this vantage point and other locations within the park. Existing vegetation screens the middleground and background views. The number of viewers is high and duration of view is extended due to the recreational nature of the setting. For these reasons viewer exposure is high.
- **Viewer Concern: High.** Viewers in this area consist of recreationists experiencing the unique environment of Legg Lake, the open space, wildlife, and picnic areas. Given the recreational nature of this area, the level of visual sensitivity is considered high.

- **Visual Quality: Moderate-to-High.** The presence of a large water feature is unique in the Los Angeles Basin and park vegetation is attractive and well maintained. The overall park view exhibits an intact landscape, except for the encroachment of T/L structures on the skyline. This encroachment is offset somewhat by the evergreen trees in the foreground, providing an overall scenic park view. The unity of the view is moderate-to-high because the view is consistent with a developed park setting, and the mature trees help to visually screen the base and mid-sections of some of the transmission structures.
- **Overall Visual Sensitivity: High.** For people visiting Legg Lake in general and KOP-K specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality results in a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-L: Cargreen Avenue at Dolonita Avenue, Hacienda Heights (Segment 8, Phase 4)

KOP-L is located in Landscape Unit 15 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). Landscape Unit 15 extends approximately from Rose Hills Memorial Park on the west to State Highway 57 on the east. It is characterized by the Puente Hills, with open space along the ridgeline and residential development located on the north side of the hills. Landscape Unit 15 includes approximately nine miles of Segment 8, Phase 1 and includes the unincorporated communities of Hacienda Heights and Rowland Heights and small portions of the cities of Whittier and La Habra Heights. Existing land uses consist largely of residential uses, recreational uses and open space. Residential development extends up to the Puente Hills ridgeline, with the Approved Project T/L corridor on the skyline. Colima Road is a proposed scenic corridor in the current Los Angeles County General Plan, but is not mentioned in the draft public review version of the revised General Plan (Los Angeles County, 2012).

KOP-L is located at the intersection of Cargreen and Dolonita Avenues in Hacienda Heights, in Segment 8, Phase 4. This KOP is located in a residential neighborhood that is west of Colima Road and north of the Approved Project T/L. The view is representative of those local residents and travelers in Hacienda Heights would have of the T/Ls in the vicinity of Colima Road. Figure 4.5-14a depicts the Approved Project and Figure 4.5-14b the Modified Project as seen from KOP-L (located at the end of this section).

- **Viewer Exposure: High.** The T/Ls and structures in Segment 8, Phase 4 are highly visible from this vantage point. The foreground view exhibits a residential neighborhood set against a predominantly open hillside of the Hacienda Hills with the transmission structures and lines spanning the view. The number of viewers is considered high due to the developed residential character. Views from residences would be of long duration leading to a high viewer exposure.
- **Viewer Concern: High.** Residents and motorists enjoy the open space character and panoramic views of the Hacienda Hills that can be seen from this area. The Hacienda Hills provide a natural-appearing backdrop to homes and neighborhoods resulting in a high level of viewer concern.
- **Visual Quality: Moderate-to-High.** The primary focal point in this landscape is the Hacienda Hills. A secondary focal point is the T/Ls and structures associated with the Approved Project. The overall visual quality is moderate-to-high due to the prominence of T/L structures.
- **Overall Visual Sensitivity: High.** For residents and visitors in the vicinity of KOP-L, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-M: Crossroads Park, Chino Hills (Segment 8, Phase 1)

KOP-M is located in Landscape Unit 17 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). This unit is bounded on the west by unincorporated Los Angeles County, on the east by Highway 71, and extends approximately one mile north of the transmission corridor and south

to the Butterfield Ranch Road interchange of Highway 71. Landscape Unit 17 contains the central portion of the City of Chino Hills and a small portion of the City of Chino that lies west of Highway 71. The terrain within this landscape unit consists of rolling hills and valleys in the west that generally grade to lower-lying, flatter terrain in the east. The density and extent of development generally increases from west to east across this landscape unit. Improved areas consist primarily of single-family residential neighborhoods, with commercial development occurring along some portions of the area's major arterials. The Approved Project passes through several residential neighborhoods, including the Pine Valley gated community. Vegetation consists of native grasses, shrubs, and trees in undeveloped areas, and a variety of planted deciduous trees, evergreens, palm trees, various shrubs, and grass lawns in developed areas. Decorative landscaping is also present at some locations within the ROW itself. The most visually dominant features in this landscape unit are the rolling hills (both developed and undeveloped) and the existing transmission structures and conductors from some viewing perspectives. Viewers of the transmission corridor within Landscape Unit 17 include residents within their homes and yards; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterials. The City of Chino Hills has several policies related to the preservation of natural ridgelines and has identified Carbon Canyon Road as a scenic corridor. San Bernardino County has designated Euclid Avenue as a scenic highway.

KOP-M was established within Crossroads Park, a neighborhood park located on Eucalyptus Avenue and Chino Hills Parkway in Chino Hills. The location of KOP-M is the same as that depicted in the Project Modification Report, Figure 3.13-3a (SCE, 2011b) which is on the east side of a chain link fence that encircles a small monitoring device within the park. The view from KOP-M is looking eastward along Segment 8, Phase 1. Green grass and mature trees are seen on the park hillside, beyond which is a residential neighborhood. The Project T/L runs along the spine of the ridge that separates the open lawn area from sports fields on the other side. Figure 4.5-15a depicts the Approved Project condition and Figure 4.5-15b the Modified Project condition as seen from KOP-M (located at the end of this section).

- **Viewer Exposure: High.** The Modified Project would be highly visible from this park and nearby residential neighborhood, as there is no topographic or vegetative screening of the upper portion of the transmission structures and lines. Viewing distance to the transmission corridor is immediate foreground in the park and foreground from adjacent neighborhoods. Though not discernible in the photograph, on clear days there are distant views down into the urbanized valley containing Chino Hills, Chino, and Ontario, and background views across the valley to the San Bernardino Mountains. The number of park viewers is high-to-moderate and viewing time is extended, leading to a high viewer exposure.
- **Viewer Concern: High.** Viewers in this area consist primarily of neighborhood residents visiting this park to enjoy the open space and play on park facilities. Given the residential nature of this area, the level of visual sensitivity is considered high.
- **Visual Quality: Moderate-to-High.** The level of vividness in this view is above average given the park setting and the distant view of San Bernardino Mountains available on clear days. The visual unity is average, given a generally coherent neighborhood park setting, but this is disturbed by the transmission corridor. The visual intactness is moderately low due to encroachment of the transmission structures. The overall visual quality for this KOP is moderate-to-high.
- **Overall Visual Sensitivity: High.** For visitors to Crossroads Park in general and KOP-M specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-N: Morningfield Drive, Chino Hills (Segment 8, Phase 4)

KOP-N is located in Landscape Unit 17 which is described above under KOP-M and in detail in the Final EIR and Final EIS (Section 3.14.2.3). KOP-N is a new KOP established on Morningfield Drive at the Project ROW of Segment 8, Phase 4, looking northeast. Morningfield Drive is a residential street that connects Eucalyptus Avenue to Payton Drive, and is within a residential subdivision north of Chino Hills Parkway. From this KOP four Approved Project transmission structures and lines would be seen. A TSP dominates the immediate foreground, followed by an LST in the foreground distance zone, after which the ROW bends east and two more TSPs can be seen above the tree line in the middleground. The utility ROW is gated to prevent vehicular access, but pedestrian access is possible. Private land owners have fenced their properties, but some have extended landscaping beyond their fence line and into the ROW. Some property owners have posted signs that advertise their opposition to the Project. Figure 4.5-16a depicts the Approved Project condition and Figure 4.5-16b the Modified Project condition as seen from KOP-N (located at the end of this section).

- **Viewer Exposure: High.** The Modified Project would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the T/L is immediate foreground and foreground from residences and streets in this neighborhood. The number of viewers is moderate-to-high and viewing time is extended from these streets, homes, and yards, leading to a high viewer exposure.
- **Viewer Concern: High.** Viewers in this area consist primarily of neighborhood residents in single-family homes on neighborhood streets. Opposition to the Project is strong as evidenced by yard signs. Given the residential nature of the area and public opposition to the Project, the level of visual sensitivity is high.
- **Visual Quality: Moderate-to-High.** The level of vividness in this view is average; the distant views to and across the valley adds some visual interest, and the neighborhood is well kept, except that the existing transmission structures encroach upon the view, add an incongruent industrial character to this otherwise residential landscape, and create a strong degree of contrast with the scale and character of the neighborhood. The visual unity is average given the generally coherent nature of this suburban neighborhood, and incongruent nature of the T/L ROW. Therefore, the overall visual quality for KOP-N is moderate-to-high.
- **Overall Visual Sensitivity: High.** For residents in the general area of KOP-N, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-O: Bike Path near Edam Street, Chino (Segment 8, Phases 2/3)

KOP-O is located in Landscape Unit 18 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). This landscape unit is bounded on the west by the Corona Freeway (Highway 71), on the east by Euclid Avenue (Highway 83), and extends approximately one mile north and south of the transmission corridor. Landscape Unit 18 contains the City of Chino east to the City of Ontario. The terrain within Landscape Unit 18 is generally flat. From Highway 71 to Central Avenue, development is dominated by large commercial warehouses and then from Central Avenue to Euclid Avenue, a mix of agricultural, single-family residential, and commercial land uses. As is typical for many of SCE's transmission corridors, several nurseries are present within the ROW itself. In addition, there is a bike path for roughly a half-mile between Cypress and Fern Avenues. Vegetation in Landscape Unit 18 consists primarily of planted lawns, trees, and shrubs in residential areas, and various agricultural crops both within and near the transmission corridor. The most visually dominant features in this landscape unit are the large warehouses in the west, the agricultural fields, and existing transmission towers and conductors as seen from some viewing perspectives. Under the Modified Project there would be 34 towers with aviation lights between Chino and Ontario. In Segment 8 Phase 2 (northern corridor, Segment 8B), there are nine towers with aviation lights currently, and three more towers would have aviation

lights installed under the Modified Project. In Segment 8 Phase 3 (southern corridor, Segment 8A/8C) 22 structures would have aviation lights. There would be no spans of marker balls in Segment 8, Phases 2/3. In addition to marker balls and aviation lights, the height of 21 structures would be reduced, including the redesign of seven TSPs with specially designed dead-end LSTs in Segment 8, Phase 3 to reduce potential interference with the instrument approach procedure at Chino Airport. Viewers of the transmission corridor within Landscape Unit 18 include residents within their homes; pedestrians, bicyclists, and motorists traveling on residential streets and bike paths; and motorists passing through the landscape unit on major arterial streets.

KOP-O is located on a bike path, next to a residential neighborhood that is near the eastern end of Landscape Unit 18. KOP-O is the same location as the KOP shown in Figure 3.13-11 of the Project Modification Report (SCE, 2011b). The view from KOP-O is to the east-southeast. In the immediate foreground is a bike path with agricultural fields of strawberries growing within the ROW of the transmission corridor associated with Segment 8B. The bike path starts at Cypress Avenue and extends east to Highway 83. Segment 8, Phases 2/3 is seen in the distant foreground to the south, with residential neighborhoods bordering the T/L corridor. The terrain is flat with predominantly low growing agricultural crops interspersed with small groupings of trees. Figure 4.5-17a depicts the Approved Project condition and Figure 4.5-17b the Modified Project condition as seen from KOP-O (located at the end of this section).

- **Viewer Exposure: High.** Segment 8, Phase 3 is the T/L corridor seen on the far side of the field. It is in the foreground of KOP-O and is readily noticeable due to the flat topography and minimal vegetative screening in the area (the T/L in the immediate foreground is Segment 8, Phase 2). The number of viewers is high since it would include bike path users, and local residents in the area resulting in a high level of viewer exposure.
- **Viewer Concern: High.** Local residents and bike path users are considered to have high viewer concern.
- **Visual Quality: Low-to-Moderate.** Landscape quality in this view is low-to-moderate given the flat terrain and lack of memorable elements. Agricultural fields and transmission corridors dominate the foreground views. The area has a low-to-moderate level of vividness, intactness and unity and therefore the visual quality is considered low-to-moderate.
- **Overall Visual Sensitivity: Moderate-High.** For residents in the vicinity of KOP-O, the high viewer exposure, high viewer concern, and low-to-moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-P: South Archibald Street near East Chino Avenue, Ontario (Segment 8, Phases 2/3)

KOP-P is located in Landscape Unit 19 which is described in detail in the Final EIR and Final EIS (Section 3.14.2.3). This landscape unit is bounded on the west by Euclid Avenue (Highway 83) and on the east by the Ontario Freeway (I-15). The majority of this unit is in the southern portion of the City of Ontario. The boundary of this landscape unit extends approximately one mile north and south of Segment 8, Phases 2/3. The terrain within Landscape Unit 19 is generally flat, with the San Bernardino Mountains visible to the north and east. Development is dominated by dairy farms and other agricultural uses, with residential subdivisions to the north and in the east-central portion of the landscape unit. Vegetation consists primarily of grass fields, agricultural crops, and planted grass lawns, trees, and shrubs in residential areas. Viewers of the transmission corridor within Landscape Unit 19 include: residents within their homes and yards; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterials.

San Bernardino County has designated Euclid Avenue as a scenic highway, and the East Chino Specific Plan identifies Euclid Avenue as a “Special Boulevard”. The City of Ontario has identified Euclid Ave-

nue, Grove Avenue, Vineyard Avenue, Archibald Avenue, Milliken Avenue, and Edison Avenue for creation of scenic roadways and view corridors.

KOP-P is located on South Archibald Avenue, at the southeast corner of the Archibald Ranch Christian Preschool and is the same location as Figure 3.13-12 from the Project Modification Report (SCE, 2011b). The view is to the southwest where agricultural fields and transmission structures and lines associated with Segment 8, Phase 2 are seen in the foreground. Segment 8, Phase 3 is seen in the middleground where the lower portions of the towers are screened by vegetation. In the background are distant views of the Puente Hills. Figure 4.5-18a depicts the Approved Project condition and Figure 4.5-18b the Modified Project condition as seen from KOP-P (located at the end of this section).

- **Viewer Exposure: Low.** Segment 8, Phase 3 would not be readily noticeable from this KOP due to the middleground viewing distance, the flat terrain and intervening vegetation, resulting in a low level of viewer exposure.
- **Viewer Concern: Moderate.** Viewers in this area consist primarily of travelers on South Archibald Avenue, neighborhood residents and visitors to the Archibald Ranch Christian Church and Preschool. Most of these viewers would experience middleground views of short duration while traveling through the area. The level of viewer concern is considered to be moderate.
- **Visual Quality: Low-to-Moderate.** The level of vividness, intactness and unity in this view is low-to-moderate given the flat terrain and the lack of memorable elements. Agricultural fields dominate the foreground, and residential development comprises middleground views. The T/L corridors associated with Segment 8, Phases 2/3 detract from this agricultural setting resulting in a low-to-moderate level of visual quality.
- **Overall Visual Sensitivity: Low-to-Moderate.** For residents and visitors in the vicinity of KOP-O, the low viewer exposure to Segment, Phase 3, moderate viewer concern, and low-to-moderate visual quality lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics.

4.5.2 Applicable Laws, Regulations, and Standards

Federal laws, regulations, and standards for visual resources under the Modified Project include the Council on Environmental Quality (CEQ) Regulations for implementing NEPA, and the Forest Plan standards. State laws, regulations, and standards for visual resources under the Modified Project include the California Environmental Quality Act guidelines, California Streets and Highway Code for Scenic Highways. Local laws, regulations, and standards for visual resources under the Modified Project include County General Plans and policies for Los Angeles County and Specific Plans and General Plans for cities and unincorporated areas with various jurisdictions that would be crossed by the Modified Project (Refer to Tables C-1, C-2, and C-3 of Appendix C of the *Visual Resources Specialist Report* [Anderson, 2009]). Laws, regulations, and standards from jurisdictions not affected by the Modified Project, have been omitted from this review including: Kern and Orange Counties and cities and unincorporated areas along Segment 11 south of the ANF.

Documents reviewed for the Approved Project were revisited as part of this SEIR/SEIS to see if they had been superseded by plan updates or revisions. The cities of Lancaster, Chino, and Ontario had more recent general plans that were reviewed. Los Angeles County continues the process of updating their general plan, and the public review draft was reviewed. Applicable regulations and policies from these more recent documents are set forth in Table 4.5-3.

Table 4.5-3. Modified Project: Laws, Regulations and Standards – Visual Resources

Regulation or Plan	Policy, Goal, Regulation or Standard (as applicable)	Text or Description
Land Management Plan – Part 3: Angeles National Forest Standards, USDA Forest Service (September 2005)	TRTP Project-specific Forest Plan Amendment to Aesthetic Management Standard: S9	Allows <u>Project-specific</u> exceptions to Aesthetic Management Standards S9. <u>Standard S9</u> requires: Design management activities to meet the Scenic Integrity Objectives (SIO)s shown on the Scenic Integrity Objectives Map.
Los Angeles County General Plan, Public Review Draft, Text-Only Version 5/2012 Goal Conservation/Natural Resources (C/NR) 13: Protected visual and scenic resources (p. 271) Scenic Resource Protection	Policy C/NR 13.1:	Protect the County's scenic resources through land use regulations that mitigate development impacts.
	Policy C/NR 13.2:	Protect the County's ridgelines from incompatible development that diminishes their scenic value.
	Policy C/NR 13.3:	Reduce light trespass, light pollution and other threats to scenic resources.
	Policy C/NR 13.4:	Encourage developments to be designed to create consistent visual relationships with the natural terrain and vegetation.
	Policy C/NR 13.5:	Require grading to conform to the existing terrain.
City of Chino, Envision Chino, General Plan 2025, July 2010 Land Use Element	D. Land Use Designations – LU-7	"... it is one of the goals of this General Plan to phase out the ... East Chino, and Eucalyptus Business Park Specific Plans over time,"
City of Chino, Envision Chino, General Plan 2025, July 2010 Community Character (CC) Element	Goal CC-1. Establish high standards of community design in Chino.	Policy 5. Lighting on private and public property should be designed to provide safety, while minimizing light spillage to adjacent properties and the night sky.
	Goal CC-6. Preserve Chino's view corridors.	Policy P1. New development should not obstruct, detract from or negatively affect views of the San Gabriel Mountains to the north and the Chino Hills to the south. These views are an integral part of the City.
City of Lancaster, General Plan 2030, July 2009	Objective 3.8	Preserve and enhance important views within the City, and significant visual features which are visible from the City of Lancaster.
	Policy 3.8.1	Preserve views of the surrounding ridgelines, slope areas and hilltops, as well as other scenic vistas.
	Policy 19.2.4	Provide buffers to soften the interface between conflicting land uses and intensities.
	Policy 19.2.6	Minimize the visual impact of utility corridors and their associated equipment.
City of Ontario, The Ontario Plan, Policy Plan, January 2010, Community Design Element (CD1) – Image & Identity	Goal CD 1: A dynamic, progressive city containing distinct neighborhoods and commercial districts that foster a positive sense of identity and belonging among residents, visitors, and businesses.	Policy CD1-5. View Corridors: We require all major north-south streets to be designed and redeveloped to feature views of the San Gabriel Mountains, which are part of the City's visual identity and a key to geographic orientation. Such views should be free of visual clutter including billboards, and may be enhanced by framing with trees.
City of Ontario, The Ontario Plan, Policy Plan, January 2010, Land Use Element (LU2) – Compatibility	Goal LU2: Compatibility between a wide range of uses.	Policy LU2-6: Infrastructure Compatibility. We require infrastructure to be aesthetically pleasing and in context with the community character.

Sources: Forest Service, 2010c; LA Co., 2012; City of Chino, 2010; City of Lancaster, 2009; City of Ontario, 2010.

4.5.3 Impact Analysis Approach

The impacts for this SEIR/SEIS are determined by comparing the impacts of the Approved Project, as disclosed in the Final EIR and Final EIS, to the impacts of the Approved Project with the implementation of the proposed modifications (i.e., Modified Project) (see Section 2.3).

4.5.3.1 Criteria for Determining Impact Significance

The Visual Resource criteria for significance determinations used in this SEIR/SEIS are the same as those used in the Final EIR and Final EIS. The criteria are derived from previous environmental impact assessments and from the CEQA Guidelines (Appendix G, Environmental Checklist Form, Section IX), and are used here to make CEQA significance conclusions. Impacts resulting from the Modified Project are considered significant if they meet the following visual criteria:

- Criterion VIS1: Have a substantial adverse effect on the existing landscape character and visual quality of the site and its surroundings.
- Criterion VIS2: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
- Criterion VIS3: Substantially damage scenic resources within a scenic highway viewshed or a national scenic trail viewshed (including, but not limited to, trees, rock outcroppings, and historic buildings).
- Criterion VIS4: Conflict with applicable adopted city, county, State, or federal plans, policies, regulations, or standards applicable to the protection and management of visual quality in the landscape.

Direct, indirect, and cumulative effects of implementing the Modified Project were identified for visual resources, using the same impact analysis approach as the Final EIR and Final EIS (Section 3.14.4). Seven types of visual impacts were identified for the Approved Project: Impacts V-1 through V-7, as listed below. These were revisited for potential additional impacts or substantial increases in severity of those impacts as a result of the Modified Project. However, several of these impacts do not apply to the Modified Project: Impact V-2 addresses visual impacts to landscapes that currently have no T/Ls; since the Modified Project addresses adding lights and marker balls to the Approved Project T/Ls, Impact V-2 does not apply. Impact V-4 addresses visual impacts from vegetative clearing and/or earthwork associated with road improvements and pulling and splicing locations; since the addition of marker balls and aviation lights would be done in conjunction with construction of the Approved Project, or would use existing, approved construction staging areas, the Modified Project would not result in additional vegetative clearing or earthwork. Impact V-5 addresses light and glare impacts from metal surfaces associated with the T/L infrastructure. Since this impact is addressing tower materials, it is not associated with the Modified Project.

For the Modified Project, Impacts V-1, V-3, V-6, and V-7 remained applicable, although Impact V-1 has been altered to include installation and maintenance activities associated with the Modified Project. For the Modified Project, Impact V-8 is used as a proxy for Impact V-3, and is not a new or different impact from Impact V-3. Both impacts address the adverse visual effects of the Modified Project. Impact V-3 addresses changes in T/L tower design in Segments 8A and 8C and Impact V-8 addresses the visual effects of marker balls and night lighting power sources. One new impact was identified for the Modified Project, Impact V-9, which addresses night lighting impacts and was not identified in the Final EIR and Final EIS. Impacts V-8 and V-9 continue the numbering sequence begun in the Final EIR and Final EIS. Below is a list of the impacts used for analysis of the Modified Project.

- Impact V-1: Temporary visibility of construction, installation and maintenance activities and equipment involved with the Project would alter the landscape character and visual quality of landscape views (Criterion VIS1).
- Impact V-3: For a landscape with an existing T/L, increased structure size and new materials would result in adverse visual effects. This impact is used to evaluate the redesign of structures only in Segments 8C and 8D (Criterion VIS1).
- Impact V-6: The Project would contribute to the long-term loss or degradation of a scenic highway viewshed or national scenic trail viewshed (Criterion VIS3).
- Impact V-7: The Project would conflict with established visual resource management plans or landscape conservation plans (Criterion VIS4).
- Impact V-8 (Impact V-3 Proxy): The addition of marker balls, aviation lighting, and supporting components required for the Project would alter the landscape character and visual quality of landscape views (Criterion VIS1).
- Impact V-9: The addition of aviation lights on transmission towers would affect nighttime views in the area (Criterion VIS2).

4.5.3.2 Approved Project Applicant-Proposed Measures (APMs)

APMs included within Final EIR and Final EIS Table 3.14-6 remain applicable to the Modified Project. APMs are a commitment by the Applicant (SCE) and are considered part of the Modified Project; therefore, the following discussions of impact analysis assume that all APMs will be implemented. Additionally, mitigation measures have been incorporated into the Approved Project where it was determined that APMs do not fully mitigate the impacts for which they are presented. All mitigation measures for the Approved Project would apply to the Modified Project (see Appendix C).

4.5.3.3 Impact Assessment Methodology

The visual resources impacts of the Modified Project are discussed below in Section 4.5.4 under subheadings corresponding to each of the significance criterion presented in Section 4.5.3.1. The analysis describes the impacts of the Modified Project related to visual resources and, for each criterion, determines whether implementation of the Modified Project would result in significant impacts. The analysis only focuses on any changes in impacts from the Approved Project (as presented in the Final EIR and Final EIS) with the addition of the proposed modifications (i.e., Modified Project).

In evaluating the changes, the impact analysis responds to the following questions for each significant criteria discussion:

- Will the Project changes result in impacts not already identified in the Final EIR and Final EIS? If there are any new impacts, are they significant?
- Will the Project changes substantially increase the severity of any significant impacts identified in the Final EIR and Final EIS?
- Is there additional feasible mitigation available to reduce or avoid the significant impacts associated with the Project changes?

For the purposes of satisfying CEQA requirements, the significance of each impact is also identified according to the following classifications: Class I: Significant impact; cannot be mitigated to a level that is less than significant; Class II: Significant impact; can be mitigated to a level that is less than significant; Class III: Adverse impact; less than significant; and Class IV: Beneficial impact.

Methodology on non-NFS lands: Visual Sensitivity (VS)/Visual Change (VC)

The same Visual Sensitivity/Visual Change (VS/VC) methodology used to describe visual conditions associated with the Approved Project is used for the Modified Project (refer to the Final EIR and Final EIS, Section 3.14.2.1) on non-NFS lands. The VS/VC methodology consists of comparing the visual sensitivity (VS) associated with each KOP under the Approved Project (described above for each KOP in Section 4.5.1.2), against the amount of visual change (VC) (described below for each KOP) that would result under the Modified Project. The higher the level of VC, the more likely visual impacts are to be significant in the context of existing VS which assumes build-out of the Approved Project. As described in Section 4.5.1.1 above, computer simulation has been used to portray both the Approved Project (existing) condition, as well as the Modified Project (proposed) condition. Details of the use of simulation for each KOP can be found in Table 4.5-2. Computerized visual simulations were prepared to aid in the assessment of VC and overall impact significance, which was arrived at by evaluating the extent of visual change in the context of the existing visual sensitivity.

Methodology on NFS lands: SMS Compliance

On NFS lands the visual analysis compares predictions of future visual conditions with the SIOs that would result from the Approved Project. The visual resource analysis uses the Forest Service SMS methodology to evaluate the Modified Project and its effects on landscape aesthetics and visual quality in the ANF, and to ascertain compliance with the Forest Plan for NFS lands crossed by Segments 6 and 11.

The visual analysis within the ANF differs from the North and South areas in that the Forest Plan sets forth management standards in terms of SIOs for the visual resource against which management activities, such as the Modified Project, are to be evaluated for compliance. Under the Forest Plan, the vast majority of Segments 6 and 11 have a Forest Plan standard of High SIO. Under the Approved Project there were drops of one, two and three SIO levels resulting in none of the Project segments achieving a High SIO, and very few areas achieving a Moderate SIO. The SEIR/SEIS analysis evaluates the change in SIOs between the Approved Project and Modified Project to determine the further decline in SIOs under the Modified Project.

Although most, if not all, of the KOP's used in the Approved Project would be affected by the Modified Project, only a handful were re-simulated for this SEIR/SEIS analysis in an effort to provide a more concise document. Seven KOPs are used to aid in the visual analysis of Modified Project within the ANF. Four KOPs show marker ball spans in Segment 6 and four show marker balls in Segment 11. All but one of the seven KOPs are revised versions of the KOPs from the Final EIS. The Final EIS KOP names are cross-referenced within the text. The visual effects of aviation lighting power sources (i.e., photovoltaic panels, battery packs, etc.) is described, but not simulated as the type and mounting location of the units are not known at this time. There would be aviation lights on two structures located on NFS lands, and two structures located on private inholdings adjacent to those NFS lands in Aliso Canyon (Segment 11).

Most of the KOPs in the ANF show expansive middleground views from visually sensitive travel routes and underestimate the visual effects that continuous spans of marker balls would have in immediate foreground (0-300 feet) and foreground (300 feet to ¼ mile) distance zones, where the transmission corridor would parallel visually sensitive travel corridors for miles in some instances. Thus, visual effects are considered primarily by landscape character (desired, existing, and future) distance zones,

and Scenic Integrity (desired, existing, and future). KOP simulations are used to represent snapshots of these visual effects and conditions.

4.5.4 Environmental Impacts and Mitigation Measures

Direct and Indirect Effects Analysis

Have a substantial adverse effect on the existing landscape character and visual quality of the site and its surroundings (Criterion VIS1)

Impact V-1: Temporary visibility of construction, installation and maintenance activities and equipment involved with the Project would alter the landscape character and visual quality of landscape views.

North, Center, and South Areas

The vast majority of marker balls would be installed by helicopter and construction areas identified under the Approved Project would be used as landing areas and for crane pads. Final EIR and Final EIS Mitigation Measure V-1 (*Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis*) calls for the restoration of construction areas to the pre-project condition. As such, there would be no additional ground disturbance associated with the installation and maintenance of marker balls on conductors under the Modified Project. Disturbance to the viewing public by helicopter activity would result in a minimal increase in helicopter use for marker ball installation, as an additional ten helicopter hours per day would result in only a ~~four~~-seven percent increase in the projected overall helicopter use for the Project (see Table 2.3-2). Maintenance activities would include periodic replacement of marker balls (up to four times over the 50-year Project lifespan); these activities would have minimal visual impact due to the limited nature and infrequency of these occurrences. As such, the visibility of construction or installation activities and equipment involved in the installation and maintenance of marker balls would not alter landscape character or visual quality in the North, Center, and South Areas.

Where feasible, aviation lights would be installed on transmission structures as they are constructed. For towers already constructed, aviation lights would be installed primarily by ground-based construction crews, although helicopters could be used in certain circumstances. As stated above, construction areas identified under the Approved Project would be used for construction (e.g., installation) of the Modified Project and mitigation measures under the Approved Project call for restoration of the construction areas. Therefore, no ground disturbance is anticipated for aviation lighting installation. Construction or installation of aviation lights on transmission towers would result in no alteration of landscape character or visual quality in the North, Center, and South Areas.

Redesign of towers in Segment 8, Phase 3 could result in minor alterations in construction techniques, and possible minor adjustments to final placement of the redesigned towers as described in the Project Description above. Since these changes in tower design would be minor, and the same number of towers as the Final EIR and Final EIS would be installed, the visual impact of construction of the redesigned towers would not result in additional construction impacts or increase the severity of visual impacts identified in the Final EIR and Final EIS.

Indirect Effects

There would be no indirect visual effects associated with construction activities for the installation and maintenance of marker balls, aviation lights, and redesign of towers in Segment 8, Phase 3.

Approved Project Mitigation Measures for Impact V-1

V-1 Clean up staging areas, storage areas, marshaling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis.

CEQA Significance Conclusion

Construction, installation and maintenance activities associated with the installation of marker balls in the North, Center, and South Areas would result in an adverse impact that is less-than-significant (Class III) under Impact V-1 for the Modified Project since there would be no new construction or landing areas developed; the increase in helicopter installation time over the Approved Project would be minor (~~seven~~^{four} percent), and redesign of towers in Segment 8, Phase 3 are anticipated to result in minor construction alterations and minor placement adjustments. Under the Approved Project, there were significant and unavoidable impacts (Class I) under Impact V-1. The Modified Project would not result in new or additional impacts to those identified in the Final EIR and Final EIS, nor would it substantially increase the severity of significant impacts identified in the Final EIR and Final EIS under Impact V-1 since impacts are found to be less than significant. No additional mitigation is proposed.

Impact V-8 (Impact V-3 PROXY): The addition of marker balls, aviation lighting, and supporting components required for the Project would alter the landscape character and visual quality of landscape views.

North Area

The marking of T/L spans would be limited in the northern portion of the North Area. There would be no marker balls along the approximately 30 miles of T/L route between Windhub Substation and the Antelope Substation (Segments 10 and 4). Between the Antelope and Vincent Substations (Segment 5), there would be 26 spans with marker balls that average seven to eight balls per span. Aviation lighting on most transmission towers would require the installation of photovoltaic solar power units either at the base of a tower, or mounted on the structure. Base-mounted structures would require chain link fencing and barbed wire around the base of a tower. Tower-mounted units would have off-white power boxes.

KOP-A: Bower Place at Paintbrush Drive, Palmdale (Segment 7)

KOP-A, located at Bower Place and Paintbrush Drive in the Anaverde Development in Palmdale, is representative of the visual impacts of the Modified Project in Segment 5 in the North Area. Figure 4.5-3b (located at the end of this section) shows the Modified Project condition (with marker balls) as seen from KOP-A. From this viewing location there would be foreground views of marker balls on two T/L spans. The visual change (VC) associated with the marker balls seen from KOP-A is described below.

- **Visual Contrast: Moderate.** The marker balls are seen against an open sky in the foreground. Beyond the foreground viewing distance (0.5 mile) the balls are not noticeable except for low-light viewing conditions, such as the early morning or evening when the sun can “light up” the line as well as the marker balls and become more noticeable. The light colored balls are more noticeable than the orange balls when seen against the sky. The balls appear small, about the size of a sign posted on one of the towers in the image. The numerous towers and conductors dominate the view resulting in the marker balls not being readily noticeable

most of the time. The balls contribute a minor level of visual contrast most of the time to the maze of transmission towers and lines seen in this view. Overall, the level of visual contrast from the marker balls as seen from KOP-A would be moderate.

- **Project Dominance: Low.** The marker balls are approximately 36 inches in diameter. The small scale of these elements compared to the T/L components, even when seen in the foreground distance zone results in a low level of visual dominance as seen from KOP-A.
- **View Blockage and Disruption: Low-to-Moderate.** The marker balls appear small, not readily noticeable, and are seen against the sky resulting in a low level of view disruption most of the time, although early morning and evening lighting conditions can “highlight” the line increasing the disruption caused by the marker balls. From more distant locations, beyond the foreground, where the conductors would be back-dropped against the hillside, the marker balls would not be readily evident most of the time. From KOP-A the marker balls would have a low-to-moderate level of view disruption.
- **Overall Visual Change: Low-to-Moderate.** Marker balls associated with the Modified Project would result in a moderate level of visual contrast, low project dominance, and a moderately low level of view blockage and disruption. Therefore, the overall VC would be low-to-moderate as seen from KOP-A.

Center Area

The visual analysis within the ANF differs from the North and South areas in that the ANF has visual standards in terms of SIOs set forth in the Forest Plan. Almost all of the T/L segments within the ANF have a Forest Plan standard for a High SIO with the remaining portion being a Moderate SIO. The Approved Project resulted in the T/L achieving a very low or unacceptably low level of scenic integrity for the majority of Segments 6 and 11.

Simulations of seven KOPs located in the Center Area aid in the visual analysis of the Modified Project, but Project effects are assessed based on changes to scenic integrity in the context of visual sensitivity per the SMS methodology. Four KOPs in Segment 6 have been simulated to show marker ball spans, and three in Segment 11. Simulations of the Approved Project, without marker balls are also considered (KOP-Center-1 through KOP-Center-20). The discussion of visual effects starts at the north end of the ANF near the Vincent Substation, travels south across the ANF, switching between the segments and ending at the ANF boundary above Duarte for Segment 6 and Altadena for Segment 11.

In Segment 6 there would be 544 marker balls on 18.69 miles of T/L span length. Of the 23.88 miles of T/L in Segment 6, marker ball spans would account for 78 percent of the total length. In Segment 11 there would be 407 marker balls on 13.55 miles of T/L span length. Of the 18.42 miles of T/L in Segment 11, marker ball spans would account for 74 percent of the total length. In addition, aviation lights would be installed on four towers in Aliso Canyon which would require installation of power sources and possibly fencing around the power source.

When seen in immediate foreground and foreground viewing distances (0-0.5 mile) the marker balls would attract attention and add visual clutter to the landscape. The orange, yellow and white colors of the balls would contrast against the greens and browns of the terrain and increase their visibility which would detract from the naturally appearing landscape. When several continuous spans of marker balls are seen paralleling a travel corridor the marker balls would begin to dominate the view. In the middleground, marker ball visibility would begin to recede when seen in shadow, but would be highlighted and reflective during times of low sun angles (morning and evening). Beyond $\frac{3}{4}$ mile distance, the visual effect is minimized due to the intervening distance and the relatively small size of the balls.

KOPs B through H below have been simulated to depict the Approved Project. Most of the KOPs show middleground views where the visual effects of the marker balls have begun to soften and do not depict the visual effects that would occur at nearer distances.

KOP-B: Eastbound Aliso Canyon Road near Soledad Canyon Road (Segment 11)

Marker balls would be seen on three spans of T/L between MP 3.0 and MP 4.0 of Segment 11 in the middleground distance zone from KOP-B on Aliso Canyon Road. The marker balls would be in the direct line of sight for eastbound travelers on the road and would be seen against a backdrop of canyon slopes by travelers on Aliso Canyon Road and local residents (see Figure 4.5-4b located at the end of this section). In addition, there would be aviation lights on four of these towers, and the power source could be base-mounted requiring fencing around the base of the towers.

- **Future Scenic Integrity: Unacceptably Low.** The Final EIS for the Approved Project found the T/L corridor in this area would achieve an ~~very-unacceptably~~ low level of scenic integrity. Under the Modified Project, the contrasting colors of the marker balls would add to the visual clutter of the T/L and would be more noticeable when the sun was at a low angle and the balls would be highlighted. The addition of marker balls would further detract from the scenic integrity of this viewshed. Under the Modified Project scenic integrity would drop further to an unacceptably low level.

KOP-C: Northbound Angeles Forest Highway near Mill Creek Summit (Segment 6)

Marker balls would be seen on three spans of T/L in the middleground distance zone between MP 5.0 and MP 6.0 of Segment 6 from KOP-C. The marker balls would be in the direct line of sight for those traveling northbound on the highway (see Figure 4.5-5b located at the end of this section).

- **Future Scenic Integrity: Unacceptably Low.** The Final EIS for the Approved Project found the T/L corridor in this area would result in an unacceptably low level of scenic integrity. Under the Modified Project marker balls would be seen on distant spans and would cluster into a mass of balls where several spans are viewed in the same line of sight. Although the marker balls appear small due to the intervening distance, this location does represent the condition where T/L spans parallel a travel corridor. If most of the spans in this view had marker balls, as is the viewing condition in other parts of the ANF, they would dominate the immediate foreground and foreground view. Under the Modified Project, scenic integrity would remain unacceptably low.

KOP-D: Southbound Upper Big Tujunga Canyon Road (Segment 6)

Four T/L spans would cross the view from KOP-D in the middleground zone between MP 14.0 and MP 15.0 of Segment 6. The T/L is in the direct line of sight of travelers on southbound Upper Big Tujunga Canyon Road. Two of the spans, to the right of the center tower in the view, would have marker balls (see Figure 4.5-6b located at the end of this section).

- **Future Scenic Integrity: Unacceptably Low.** The Final EIS for the Approved Project found the T/L corridor in this area would result in an unacceptably low level of scenic integrity. The addition of marker balls, not easily noticed at this distance, would detract from the view when seen from nearer viewing locations where the marker balls would attract attention, add to the industrial character of the corridor, and detract from the natural appearing landscape. Under the Modified Project, scenic integrity would remain unacceptably low.

KOP-E: Vetter Mountain Lookout (Segment 6)

Three spans of marker balls would cross the view from KOP-E in the middleground distance zone between MP 16.0 and MP 17.0 of Segment 6. The marker balls would extend from over the ridgeline on the left and descend across the slopes to the right. Marker balls would be on all three spans seen

from this vista point where visitors most likely stay awhile to experience the view (see Figure 4.5-7b located at the end of this section).

- **Future Scenic Integrity: Unacceptably Low.** The Final EIS for the Approved Project found the T/L corridor in this area would result in an unacceptably low level of scenic integrity. The marker balls are not readily noticeable in this view, but could be highlighted during other times of day and attract attention. This area would be seen in the foreground from highly sensitive travel routes such as the PCT and the Angeles Crest Highway. The marker balls would be more noticeable from these locations and would add to the industrial character of the T/L corridor. Under the Modified Project, scenic integrity would remain at an unacceptably low level.

KOP-F: Pacific Crest Trail near Mount Gleason (Segment 11)

One span of marker balls would be in the immediate foreground of the PCT and would cross directly over it. The next span of marker balls to the north would be in the foreground. Both spans would be back-dropped against the hillside and seen while hiking about a half-mile section of the PCT. In the middleground there would be one span of skylined marker balls that are not easily seen (see Figure 4.5-8b located at the end of this section).

- **Future Scenic Integrity: ~~Very Low~~Unacceptably Low.** The Final EIS for the Approved Project found the T/L corridor in this area would result in an unacceptably low level of scenic integrity. Under the Modified Project the appearance of marker balls would add to the visual clutter of the transmission corridor and the orange, yellow and white marker balls would contrast against the greens and browns of the characteristic landscape. Under the Modified Project, scenic integrity would remain at an unacceptably low level. ~~worsen and drop one level to a very low level.~~

KOP-G: Northbound Angeles Forest Highway (Segment 11)

Of the ten spans of T/L seen from this view (between MP 12.0 and 13.5), four have marker balls. The most visible span of marker balls is in the far lower left of the photograph and would parallel a non-project span that currently has marker. The other three spans would be seen in the distant middleground (see Figure 4.5-9b located at the end of this section).

- **Future Scenic Integrity: ~~Very~~Unacceptably Low.** The Final EIS under the Approved Project found the T/L corridor in this area would result in a very low level of scenic integrity. Under the Modified Project, this view shows how low sun angles can high-light the marker balls making them more noticeable and attracting attention to the T/L corridor. Under the Modified Project, there would be a one level drop in scenic integrity from very low to unacceptably~~very~~ low.

KOP-H: Eaton Canyon Park, Altadena (Segment 11)

Of the seven spans seen from KOP-H, six would have marker balls seen in the middleground distance zone between MP 22.5-25.5. The spans of marker ball would be seen crossing the mid slope of the Front Country range from east to west across the view. All of the spans would be back-dropped against the rugged Front Country landscape (see Figure 4.5-10b located at the end of this section).

- **Future Scenic Integrity: ~~Very~~Unacceptably Low.** The Final EIS for the Approved Project found the T/L corridor in this area would result in an unacceptably low level of scenic integrity. Under the Modified Project the marker balls would attract attention to the T/L and could be highly noticeable when a low sun angle highlights the line. Under the Modified Project scenic integrity would drop one level to remain at~~remain at~~ an unacceptably low level.

South Area

Of the nine KOPs located in the South Area, five are used to evaluate the potential effects of placing marker balls on T/Ls under Impact V-8 (KOPs I, K, L, M, and N). Two of the KOPs show views of

the Modified Project marker balls in Segment 7 (KOP-I and KOP-K), where there would be a total of 37 spans with marker balls. Three KOPs (L, M and N) show Segment 8 – Phase 4 where there would be 62 spans with marker balls. KOP-L is located in Hacienda Heights and KOPs M and N are located in Chino Hills. The discussion of KOPs starts in Duarte and travels south to Whittier and then east to Chino.

The analysis of the South Area is the same as the North Area, and differs from the Center Area and the ANF analysis methodology. Visual impacts are assessed based on the results of representative visual simulations and the degree of change from the Approved Project in visual contrast, project dominance and view blockage or disruption. KOPs show immediate foreground and foreground views of marker balls that most viewers in the South Area would typically experience. KOPs are located in residential areas, some near open space, and in parks because these are representative of the types of near views people would experience most commonly throughout the South Area.

The majority of aviation lighting would be in Segment 8, Phases 2/3 through industrial and residential areas in Chino where there would be 34 structures with aviation lights. In Segment 7, there would be 24 structures with aviation lights, most located along the I-605 corridor. Additionally, 12 structures with aviation lights would be dispersed along Segment 8, Phase 4 which crosses the Puente Hills above the communities of Whittier, Hacienda Heights and La Habra. Aviation lighting would require installation of power sources, which may include chain-link fencing (for base-mounted units and off-white power boxes. These ancillary structures would add visual clutter to the T/L and would be seen in the immediate foreground and foreground viewing distance. To reduce impacts from aviation lighting power sources, Mitigation Measures V-2b (*Treat surfaces with appropriate colors, textures, and finishes*), which would require updates to the Structure Type and Treatment Plan to incorporate these new elements, ~~and Mitigation Measure V-8 (*Use best environmental practices when installing aviation lighting power sources*)~~ would be implemented.

KOP-I: Tocino Drive, Duarte (Segment 7)

Figure 4.5-11b (located at the end of this section) shows the Modified Project marker balls that would be seen from KOP-I. Marker balls would be on four spans of both T/L corridors and would extend from the ridge top down to the residential area where the nearest towers (TSP on the left, LST on the right) can be seen in the immediate foreground of KOP-I. This KOP is unique in that it is one of two locations where there would be two transmission corridors adjacent to each other with marker balls on both T/Ls. The other location is shown in KOP-L (discussed below). The remainder of the Modified Project does not have this condition. The VC associated with the marker balls seen from KOP-I is described below.

- **Visual Contrast: High.** Three lines of marker balls, two lines on the left (TSP) and one line on the right (LST) can be seen with white, yellow and orange marker balls strung above houses and trees in the immediate foreground of this Duarte residential neighborhood. In the middleground, the three lines of marker balls are seen against the backdrop of the San Gabriel Mountains and are skylined at the top of the ridge. The combination of three lines of marker balls next to each other introduces a discordant effect, and adds to the visual clutter and industrial character of the T/Ls and towers. The three spans of marker balls, roughly parallel to each other are easily noticed, attract attention, and begin to dominate the view. They detract from the residential character of the area and result in a high level of visual contrast.
- **Project Dominance: Moderate.** The marker balls would result in a moderate level of visual dominance as seen from KOP-I. The multiple lines and bright colors of marker balls attracts attention in the immediate foreground. In the middleground the multiple lines of marker balls appear smaller, but the colors contrast

against the greens and tans of the mountain side and detract from the view. The marker balls begin to attract attention resulting in a moderate level of visual dominance.

- **View Blockage and Disruption: Moderate.** The marker balls on the T/L spans add to the disruption of the T/L corridor. The visual contrast of the marker balls on the spans strengthens the visibility of the corridor and detracts from the scenic qualities of the neighborhood, and the mountain side behind it. The brightly colored marker balls are inconsistent with this suburban landscape, creating noticeable contrasts that attract attention, resulting in a moderate level of view blockage and disruption.
- **Overall Visual Change: Moderate-to-High.** Marker balls associated with the Modified Project would result in a moderate-to-high level of overall VC due to a high level of visual contrast and moderate level of project dominance and view disruption as seen from KOP-I.

Note: KOPs J1, J2 and J32 are discussed under Criterion VIS2 regarding night lighting impacts associated with aviation lights on transmission towers.

KOP-K: Legg Lake, Whittier Recreation Area, Los Angeles County (Segment 7)

Figure 4.5-13b (located at the end of this section) shows the Modified Project marker balls seen from KOP-K located on the west shoreline of Legg Lake, off of Rosemead Boulevard in the Whittier Narrows Recreation Area. The view from KOP-K is of the Project T/L in Segment 7 paralleling the south side of Legg Lake from about MP 12.0-13.0. KOP-K is about 400 feet west of the T/L, on the south side of the lake, within the immediate foreground distance zone of the T/L. KOP-K shows marker balls on one span. VC associated with the addition of marker balls is described below.

- **Visual Contrast: Moderate.** The marker balls would be viewed in the immediate foreground distance zone from Legg Lake, and thus the visual effects would be stronger than when the marker balls are seen from more distant viewing locations. The marker balls would be silhouetted against the sky where the orange balls contrast against the overcast skies in the image. The orange colors attract attention to the T/L conductors and emphasize the horizontal lines of the transmission corridor. The balls detract from the overall viewing experience and result in a moderate level of visual contrast.
- **Project Dominance: Moderate.** The marker balls would result in a moderate level of visual dominance as seen from KOP-K. The marker balls attract attention to the conductors and tower, increase the overall visual dominance of the T/L corridor, contribute to the industrial character of the line, and add visual clutter to this park setting.
- **View Blockage and Disruption: Low.** KOP-K is located in the flat terrain of the San Gabriel River valley and there are no noticeable near or distant views of mountains or hillsides from this KOP that would be blocked or disrupted by the marker balls. The marker balls would be seen against the sky. Thus, view blockage and disruption is considered to be low.
- **Overall Visual Change: Low-to-Moderate.** Marker balls associated with the Modified Project would result in a moderate level of overall VC due to a moderate level of visual contrast and project dominance, and low level of view blockage/disruption as seen from KOP-K.

KOP-L: Cargreen Avenue at Dolonita Avenue, Hacienda Heights (Segment 8 – Phase 4)

Figure 4.5-14b (located at the end of this section) shows the Modified Project marker balls from the intersection of Cargreen Avenue and Dolonita Avenue in Hacienda Heights. From KOP-L a double span of marker balls would cross over Colima Road in the foreground on parallel spans from two separate Project T/Ls. Further to the east beyond the parallel span over Colima Road, there would be one span of marker balls on the Project T/L corridor that is further up the hill. The VC associated with the marker balls seen from KOP-L is described below.

- **Visual Contrast: Moderate.** About 16 white, yellow, and orange marker balls are seen on the span across Colima Road from this residential neighborhood that is adjacent to the open space associated with the Project T/L corridor. The corridor follows the ridgeline resulting in marker balls being seen against the open sky. The

span is in the foreground distance zone with the marker balls attracting attention to the T/Ls and moderately detracting from the overall view of the open space. The double rows of marker balls in the foreground enhance the visibility of the T/Ls by attracting attention to it. The visual contrasts are moderately strong due to number and size of the marker balls. Overall the marker balls are noticeable, attract some attention but do not dominate the view. The marker balls detract from this residential view and result in a moderate level of visual contrast.

- **Project Dominance: Moderate.** The marker balls would result in a moderate level of visual dominance as seen from KOP-L. The size and colors of the marker balls in the context of the open sky view would result in a moderate level of visual dominance.
- **View Blockage and Disruption: Moderate.** The marker balls detract to a moderate level from the overall quality of the view. Contrasts in color and form of the marker balls seen against the sky and open space hillside result in a moderate level of view blockage and disruption.
- **Overall Visual Change: Moderate.** Marker balls associated with the Modified Project would result in a moderate level of overall VC due to a moderate level of visual contrast, project dominance and view blockage/disruption as seen from KOP-L.

KOP-M: Crossroads Park at Eucalyptus Avenue, Chino Hills (Segment 8, Phase 1)

Figure 4.5-15b (located at the end of this section) shows the Modified Project marker balls that would be seen from KOP-M at Crossroads Park in Chino Hills. The view is to the northeast looking at the open grass area of the park in the immediate foreground where there would be one span of marker balls. The next span would not have marker balls. In the middleground, two more spans of marker balls would be seen, where the corridor turns to the right. On a clear day there are background views across the valley of the San Gabriel Mountains. The VC associated with the marker balls seen from KOP-M is described below.

- **Visual Contrast: Moderate.** The marker balls viewed in the immediate foreground distance zone of the park would be noticeable. The marker balls would be seen against the sky on the span above the park. More distant spans would have marker balls as well and could be noticeable from this location. The orange marker balls contrast against the sky and add visual clutter to the park setting. The marker balls add to the industrial character of the T/L corridor and result in an overall moderate level of contrast as seen from this KOP.
- **Project Dominance: Moderate.** The marker balls attract attention to the T/L spans and add to the industrial character of the T/L corridor. More distant marker balls are not easily seen from this location, but do add visual clutter to the residential setting seen in the foreground and middleground distance. The marker balls results in a moderate level of dominance as seen from KOP-M.
- **View Blockage and Disruption: Low-to-Moderate.** In the foreground viewing zone of the park, the marker balls would be seen against the open sky and do not disrupt or block any view. In the middleground, marker balls fade in contrast and dominance but add visual clutter to distant views of the San Gabriel Mountains. During times of low sun angles when the marker balls could be highlighted, they would be more visible and increase the amount of view disruption caused by the marker balls. Overall, the marker balls have a low-to-moderate level of view disruption as seen from KOP-M.
- **Overall Visual Change: Moderate.** Marker balls associated with the Modified Project would result in a moderate level of overall VC due to moderate levels of visual contrast and project dominance, and a low-to-moderate level of view disruption as seen from KOP-M.

KOP-N: Morningfield Drive, Chino Hills (Segment 8, Phase 1)

Figure 4.5-16b (located at the end of this section) shows Modified Project marker balls that would be seen from KOP-N, located at the intersection of the Project ROW and Morningfield Drive in Chino Hills. The view is to the east, looking down the Project ROW. Marker balls are seen in the immediate foreground and foreground, on the first and second spans seen from this KOP. On a clear day there are

background views across the valley of the San Gabriel Mountains. The VC associated with the marker balls seen from KOP-N is described below.

- **Visual Contrast: Moderate.** Marker balls would be seen in the immediate foreground and foreground. Viewers would experience two consecutive spans of marker balls. The orange, yellow and white of the marker balls contrast against the sky and attract attention. The marker balls add to the visual clutter and industrial character of the T/L. The level of visual contrast is moderate given the immediate foreground viewing conditions.
- **Project Dominance: Moderate.** The marker balls have a moderate level of dominance due to the immediate foreground viewing distance.
- **View Blockage and Disruption: Low-to-Moderate.** Marker balls are seen in the immediate foreground and foreground distance zones and would be seen against the backdrop of the distant San Gabriel Mountains. Low angle lighting conditions (early morning or late evening) could highlight the marker balls and increase the level of view disruption. Overall, the marker balls would have a low-to-moderate level of view disruption as seen from KOP-N.
- **Overall Visual Change: Moderate.** Marker balls associated with the Modified Project would result in a low-to-moderate level of overall VC due to moderate levels of visual contrast and project dominance, and low-to-moderate view disruption as seen from KOP-N.

Approved Project Mitigation Measures for Impact V-8 (Impact V-3 PROXY)

V-2b Treat surfaces with appropriate colors, textures, and finishes.

V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.

Mitigation Measures for Impact V-8 (Impact V-3 PROXY)

~~**V-8** Use best environmental practices when installing aviation lighting power sources. SCE shall use best environmental practices to harmonize Project changes associated with the installation of aviation lighting power sources with the surrounding landscape. SCE shall comply with the National Forest and Grasslands Built Environment Image Guide (BEIG) on NFS lands. Attempts will be made to mitigate for any visual impacts associated with newly added structures such as solar panels (glare), battery packs, control units, separate monitoring and communications systems and chain link fencing and barbed wire.~~

Indirect Effects

No indirect effects associated with Impact V-8 would occur in the North, Center and South Areas under the Modified Project.

CEQA Significance Conclusion

Impact V-8 is a proxy for Impact V-3 under the Modified Project and was developed to address different and new features associated with the Modified Project. Impact V-8 is not a new impact. Impact V-8 evaluates whether the addition of marker balls to T/L spans and aviation lighting power sources to transmission structures would alter the landscape character and visual quality of landscape views. The Modified Project would add approximately 2,248 orange, yellow and white marker balls onto 276 spans of the Approved Project T/Ls that would be seen from landscapes in the North, Center and South Areas (Project Segments 5, 6, 7, 8 and 11). The marker balls would be most visible in the immediate foreground (0-300 feet) and foreground (300 feet to 0.5 mile) distance zones, but are designed to be visible up to 0.75 mile. The visual impact of the marker balls would be the greatest when continuous spans of marker balls are seen receding into the distance from the immediate foreground.

The marker balls would add visual clutter and strengthen the overall industrial character of the T/L corridor thus adversely impacting the landscape character and visual quality of a broad range of landscape views in the North, Center and South Areas; including the rolling foothills and developing residential areas of Palmdale; rugged, post-fire landscapes of the ANF; suburban and urban areas of the San Gabriel Valley and Puente Hills; and from numerous recreational trails, open space areas, and regional and community parks throughout the San Gabriel Valley and Puente Hills. The presence of marker balls would degrade the visual quality and landscape character of residential areas, open space, park and trails areas, and NFS lands, as well as adversely affect the views of surrounding hills and mountains seen from these locations.

Also considered under Impact V-8 are the power sources used to power the aviation lights on transmission towers (refer to Impact V-9 for impacts related to aviation lighting). Ninety transmission towers would support aviation lighting. Base-mounted power sources would require chain-link fencing at the base of the transmission tower, and off-white power boxes would be required on tower-mounted power sources. These ancillary structures would add visual clutter to the T/L and would be seen in the immediate foreground and foreground viewing distance. There would be aviation lights in the North and South Areas, and ~~several a few~~ in the Center Area near the Vincent Substation and on NFS lands and private inholdings in Aliso Canyon ~~and which~~ would be seen by Forest recreationists and visitors in the vicinity of Aliso Canyon. With implementation of Mitigation Measure V-2b (*Treat surfaces with appropriate colors, textures, and finishes*) ~~and Mitigation Measure V-8 (Use best environmental practices when installing aviation lighting power sources)~~, aviation lighting power sources would be designed to blend with the surrounding environment. Fencing for ground-based power sources would blend with the surrounding vegetation; power sources mounted on tower structures would be darkened to the extent visible to blend with the tower structure. ~~These mitigation measures~~ Mitigation Measure V-2b would reduce the visual impact of the aviation power sources to a less-than-significant level.

For marker balls there is no feasible mitigation to reduce or avoid the visual impacts since the very nature of marker balls is to increase the visibility of the T/L conductors. In the Center Area, on NFS lands, Mitigation Measure V-3b (*On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality*) would apply, but would not mitigate the effects to a less-than-significant level.

Impact V-8 would not result in a new impact, but would substantially increase the severity of the impacts identified in the Final EIR and Final EIS (Impact V-3). Under the Modified Project, the addition of marker balls to T/L spans would result in adverse and significant impacts that cannot be mitigated to a less than significant level (Class I) as the marker balls would increase the visibility of the T/Ls and towers, add to the industrial character of the Project corridor, and increase the visual clutter in the landscape. Under the Approved Project, Impact V-3 (for which Impact V-8 is a proxy) was found to result in a Class I impact, as is Impact V-8 under the Modified Project. Therefore, Impact V-8 does not alter the Class I findings of Impact V-3 under the Approved Project, but would substantially increase the severity of the impact.

Impact V-3: For a landscape with an existing transmission line, increased structure size, and new materials would result in adverse effects.

Impact V-3 is used for the Modified Project to evaluate the visual effects of redesigning and reducing the height of towers proposed under the Approved Project in Segment 8. Two KOPs, KOP-O and KOP-P are used to evaluate the potential impact of the engineering design changes proposed under the

Modified Project for Segment 8, Phase 3 using the VS/VC methodology to evaluate visual impact significance. For KOPs O and P, the simulations from the Project Modification Report (SCE, 2011b) have been used. KOP-O is Figure 3.13-11a and 3.13-11b, and KOP-P is Figure 3.13-12a and 3.13-12b from the Project Modification Report, both of which were prepared by CH2MHill for SCE. The technical aspects of the simulations were revisited to verify the validity of the simulations prior to use for this analysis. The verification process found the simulations to be generally correct in the location of the T/L corridor in the landscape (alignment). However, the Project Modification Report simulations depict tower types different than those for the Modified Project and overestimate the height and number of towers that would be seen under the Modified Project from KOPs O and P. Since these differences are generally over estimates of the potential visual effect of the redesigned towers, the simulations were considered reasonable to use for the analysis.

KOP-O: Bike Path near Edam Street, Chino (Segment 8, Phases 2/3)

Figure 4.5-17b shows the Modified Project condition in Segment 8, Phases 2/3 as seen from KOP-O located on a bike path near Edam Street and San Antonio Avenue in Chino. The view is to the southeast where towers associated with Segment 8, Phase 2 are seen in the immediate foreground, and about 12 towers associated with Segment 8, Phase 3 are seen in the foreground distance zone. Two LSTs can be seen amongst the TSPs from this location, as can variation in the heights of some of the towers. The VC associated with the change in tower structures is described below.

- **Visual Contrast: Low.** From KOP-O the view is down the T/L corridor where the towers of Segment 8, Phase 3 make a continuous line. Changes in tower structure are not readily noticed due to the numerous towers seen in a foreshortened perspective. The dominant line created by the massing of towers minimizes design differences between them such that there appears to be little or no difference between LSTs and TSPs or tower height. Visual contrasts between changed tower design is not readily noticeable. As a result, the visual contrast of the engineering changes seen from this KOP is considered to be low.
- **Project Dominance: Low.** The changes in tower design as seen from KOP-O are not readily noticeable and therefore they do not dominate the view. The change in tower design blends in with the other towers and there is no noticeable change or dominance associated with the changes in tower design, resulting in a low level of visual dominance.
- **View Blockage and Disruption: Low.** The change in tower designs does not result in blockage or disruption of views associated with the T/L corridor. Visually, the tower changes are not readily noticeable and therefore would not noticeably alter the views of the T/L as seen from KOP-O. The engineering changes would result in a low level of view blockage and/or disruption.
- **Overall Visual Change: Low.** The Modified Project would result in low visual contrast, project dominance and view blockage and disruption, and thus lead to a low level of overall visual change as seen from KOP-O.

KOP-P: South Archibald Avenue near East Chino Street, Ontario (Segment 8, Phases 2/3)

Figure 4.5-18b (located at the end of this section) shows the Modified Project tower redesign in Segment 8, Phases 2/3 as seen from KOP-P which is located on South Archibald Avenue at the southeast corner of the Archibald Avenue Ranch Christian Preschool. The view is to the southwest where about 10 towers associated with Segment 8, Phase 3 are visible in the middleground distance zone. Two LSTs can be seen amongst the TSPs from this location, as can variation in the heights of the towers. Towers associated with Segment 8, Phase 2 are in the immediate foreground surrounded by agricultural fields. The VC associated with the change in tower structures is described below.

- **Visual Contrast: Low.** From KOP-P the view is across the T/L corridor where about 10 towers are seen. Changes in tower structure and height are not readily noticed due to the distance from which the transmission towers are viewed and the minimal change in shape and pattern. In general, changes in color and texture of the

towers is not noticeably different. The contrast associated with the design changes as seen from this KOP are considered to be low.

- **Project Dominance: Low.** The changes in tower design as seen from KOP-P are not readily noticeable and therefore they do not dominate the view. Tower design changes blend in with the other towers and there is no noticeable change in visual dominance of the Modified Project as compared to the Approved Project. Project dominance is considered to be low.
- **View Blockage and Disruption: Low.** There are distant background views to the Puente Hills from KOP-P. The change in tower design associated with the Modified Project does not noticeably alter the view blockage and disruption that is associated with the Approved Project. The tower design changes are not readily noticeable and therefore would not noticeably alter the views of the T/L as seen from KOP-P. The engineering changes would result in a low level of view blockage and/or disruption.
- **Overall Visual Change: Low.** The Modified Project would result in low visual contrast, low project dominance, and low view blockage and disruption, and thus lead to a low level of overall visual change as seen from KOP-P.

Indirect Effects

No indirect effects associated with Impact V-3 would occur in the South Area under the Modified Project.

CEQA Significance Conclusion

The change in tower structure design in Segment 8, Phases 2/3 would result in adverse, but less-than-significant impacts (Class III) under Impact V-3. Since the impacts are not significant, Project changes under Impact V-3 would not result in new significant impacts compared to those identified in the Final EIR and Final EIS. Nor would the Project changes substantially increase the severity of the significant impacts identified under Impact V-3 in the Final EIR and Final EIS. No additional mitigation is proposed under Impact V-3 for the Modified Project since the visual impact is less than significant.

Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area (Criterion VIS2)

Impact V-9 (NEW): Aviation lighting on Project towers would create a new source of substantial night light that would adversely affect nighttime views.

Impact V-9 is a new impact identified specifically for the Modified Project to address potential impacts associated with the addition of aviation lighting on transmission towers. Impacts under Impact V-9 are evaluated using KOP-J1, ~~and KOP-J2 and KOP-J3,~~ and the VS/VC methodology and guidance from the Institute of Lighting Engineers (ILE) regarding night lighting source intensity limitations for different landscape settings. The ILE guidance is meant for planning agencies in the development of night lighting policies and ordinance, and is used here to compare the source intensity of aviation lights to the night lighting guidelines established by ILE.

~~Night photography was taken from these two KOPs of existing aviation lighting installed along Segment 7 using a tripod set at about five feet off the ground, with no flash. For both of the photos, the shutter was kept open for approximately 30-60 seconds using a remote trigger. The photos were taken on October 17, 2012 at 7:30 p.m. for KOP-J1 and 7:45 p.m. for KOP-J2. The KOP evaluation gives a sense of the appearance of the lights in a suburban night time setting. Guidance from the Institute of Lighting Engineers (ILE) regarding night lighting source intensity limitations for different landscape settings is also considered as a threshold analysis for visual impacts. The ILE guidance is meant for~~

~~planning agencies in the development of night lighting policies and ordinance, and is used here to compare the source intensity of aviation lights to the night lighting guidelines established by ILE.~~

Under the Modified Project there would be a total of 90 towers with aviation lighting that would have focused beacons ~~that would direct light upward and outward toward potential aviation traffic without creating illumination of nearby areas~~ (refer back to Table 2.1-1 or Table 4.5-1 for the distribution of aviation lights by Project segment and Section 2.3.2 for specific design information). The majority of aviation lighting would be in Segment 8, Phases 2/3 through industrial and residential areas in Chino where aviation lighting would be installed on 34 structures. In Segment 7, there would be 24 structures with aviation lighting, most located along the I-605 corridor. There would be ten consecutive structures with aviation lights in the foothills to the west of Palmdale, six structures just south of the near Vincent Substation ~~(south)~~, and four structures in Aliso Canyon (two on NFS lands, and two on private inholdings), which would be seen from recreation use areas in the ANF. Aviation lighting has already been installed on one structure in Segment 10 near the Whirlwind Substation. The remaining 12 structures requiring aviation lighting would be dispersed along Segment 8, Phase 4, which crosses the Puente Hills above the communities of Whittier, Hacienda Heights and La Habra.

As described in the Project Description (Section 2.3) SCE anticipates the installation of two possible types of FAA-compliant obstruction lighting that would direct light upward and outward toward potential aviation traffic without creating illumination of nearby areas. The L-810 light would be a steady-burning light visible for approximately 1.4 miles. The L-864 light is a flashing red light with a flash rate of 20 to 40 flashes per minute. The L-864 light can be seen for 10 miles during ideal visibility conditions (clear skies) with minor background lighting (Weimer, 2013), such that those lights that would be seen in the ANF and other areas considered to be “dark sky” areas in this analysis.

Visual Change in the North, Center, and South Areas

KOP-J1: Greenbank Avenue, Duarte (Segment 7)

Figure 4.5-12a (located at the end of this section) shows the Modified Project condition of aviation lighting installed on transmission towers, as seen from KOP-J1 located at the north end of Greenbank Avenue in Duarte. Aviation lights are installed on towers in the immediate foreground. KOP-J1 was taken when the sky was clear, using a tripod and no flash to show night time lighting conditions without supplemental lighting. KOP-J1 is representative of immediate foreground viewing conditions where aviation lighting would be located in residential areas next to open space where there is little or no night lighting, such as near the foothills west of Palmdale and along the southern end of the San Gabriel Valley (Hacienda Heights, La Habra, Rowland Heights, and Chino Hills), and in Chino and Ontario. The VC associated with the aviation lighting seen from KOP-J1 is described below.

- **Visual Contrast: Moderate.** Red blinking lights are on the top of both towers, with steady burning lights mid-way up the tower. The towers are seen in the immediate foreground. The aviation lights are located well above the roofline of the adjacent home and there are no indications of any reddish hue falling on the house itself, which would indicate that the red lights are not impacting the home. The brightest light in the photo comes from the street light that floods the area with light, especially the landscaping on the street and the front yard of the residence in the photo. The close proximity of the street light to the aviation lights shows the relative brightness of street lights in comparison to aviation lights. While the aviation lights create contrast in the dark sky, the contrast is substantially less than that of regular street lighting. Thus, in suburban and urban settings, the contrast of aviation lights to nighttime conditions is considered to result in a moderate level of visual contrast.

- **Project Dominance: Moderate.** The aviation lights result in a moderate level of visual dominance as seen from KOP-J1 due to their small size and moderate level of ambient light compared to nearby street lighting which dominates the view, and residential lighting which is noticeable. The aviation lights are noticeable and attract attention to the towers, but the aviation lights themselves do not dominate the scene and thus result in a moderate level of visual dominance.
- **View Blockage and Disruption: Moderate.** The lighted structures sit at the base of the San Gabriel mountains. From KOP-J1 the Modified Project adds steady-burning and blinking red lights to the viewing of the hillside behind them just as other lighted structures located near Palmdale, Aliso Canyon, and southern end of the San Gabriel Valley would be seen against dark open space areas. From this immediate foreground viewing distance, the structures dominate the view while the aviation lighting strengthens the visibility of this night time view. As such, the addition of aviation lighting onto the transmission structures would result in a moderate level of view disruption as seen from KOP-J1.
- **Overall Visual Change: Moderate.** The addition of aviation lighting on transmission structures associated with the Modified Project would result in a moderate level of overall VC due to a moderate level of visual contrast, project dominance and view disruption as seen from KOP-J1.

KOP-J2: Royal Oaks Drive at the Project ROW, Duarte (Segment 7)

Figure 4.5-12b (located at the end of this section) shows aviation lighting on Project structures as seen from the Project ROW and Royal Oaks Drive in Duarte. In this view, aviation lighting is seen on the same two towers as KOP-J1 (above), but are seen in the foreground and middleground distant zones. The sky is clear and the photograph was taken with a tripod and no flash, the same as KOP-J1. KOP-J2 represents a more distant foreground and middleground viewing condition that would be representative of typical suburban and urban settings, not located adjacent to dark open space areas. Since KOP-J2 is further from the lighted towers, more of the suburban landscape is seen and more ambient light exists in this setting. The VC associated with the aviation lighting as seen from KOP-J2 is described below.

- **Visual Contrast: Low-to-Moderate.** When viewed from a greater distance than KOP-J1, and seen in the context of an urban setting, KOP-J2 shows low-to-moderate levels of visual contrast in the context of the surrounding ambient lighting, which includes street lighting on Royal Oaks Drive, and backyard lighting from residences that border the ROW. The contrast of the aviation lights to the nighttime conditions is considered to be low-to-moderate since it does not dominate but is noticeable compared to other sources of lighting seen from KOP-J2.
- **Project Dominance: Low-to-Moderate.** The aviation lighting results in a low-to-moderate level of visual dominance as seen from KOP-J2 due to the relatively small size and moderate level of ambient light levels compared to nearby residential and street lighting. While the aviation lighting is noticeable and attracts attention to the transmission structures, the lights are seen in the context of a suburban setting where night lighting is common and the aviation lighting does not dominate the scene, resulting in a low-to-moderate level of visual dominance.
- **View Blockage and Disruption: Low-to-Moderate.** The lighted transmission structures are seen against the backdrop of the San Gabriel Mountains. The lights increase the visibility of the structures at night and detract from nighttime views of the mountains. However, the ambient light in the neighborhood reduces the visibility of the mountain view and the lighted towers add to that. Overall the view blockage and disruption in this night-time seen is considered to be low-to-moderate.
- **Overall Visual Change: Low-to-Moderate.** The addition of aviation lighting on transmission structures associated with the Modified Project would result in a low-to-moderate level of overall VC due to low-to-moderate levels of visual contrast, project dominance and view disruption as seen from KOP-J2.

KOP-J3: Buena Vista Street, Irwindale (Segment 7)

Figure 4.5-12c (located at the end of this section) shows aviation lighting on Towers M27-T4 and M54-T3A as seen from approximately three miles away. Aviation lights are seen on the same two towers as KOP-J1 and KOP-J2 (described above), but are seen in the middleground distant zone. The sky is clear

and the photograph was taken with a tripod and no flash. This view is representative of typical middleground distance views that could be experienced throughout the San Gabriel Valley. The VC associated with the aviation lighting as seen from KOP-J3 is described below.

- **Visual Contrast: Low.** When viewed from the middleground distance, and seen in the context of an urban/suburban setting of Duarte, KOP-J3 shows a low level of visual contrast in the context of the urban/suburban lights seen in the distance and nearby street lighting along Buena Vista Street. The contrast of the aviation lights to the nighttime conditions is considered to be low since it does not dominate the view, but is more noticeable than the other light sources in Duarte as seen from KOP-J3.
- **Project Dominance: Low.** The aviation tower lights result in a low level of visual dominance as seen from KOP-J3 due to the smaller appearance of the lights when seen from this distance, and in the context of the street lighting along Buena Vista Street and numerous other light sources in the vicinity of Duarte. While the aviation lighting is more noticeable than other lighting in the vicinity of Duarte, it does not dominate the view since the aviation lights are seen in the context of night lighting in Duarte, and street lighting along Buena Vista Street. The aviation lights as seen from KOP-J3 meet a low level of visual dominance.
- **View Blockage and Disruption: Low.** The lighted transmission structures are seen on the horizon within the context of the urban/suburban lights in the vicinity of Duarte. From a distance of approximately three miles, the lights appear low on the horizon relative to the height of the San Gabriel Mountains which cannot be seen in this view, but could be on a clear moon lit night. Due to the approximately three mile viewing distance, the red tower lights appear low on the horizon and have a low level of effect on view blockage and disruption. View blockage and disruption is considered to be low for the night-time view from KOP-J3.
- **Overall Visual Change: Low.** The addition of aviation lighting on transmission structures associated with the Modified Project, when seen in the context of an urban/suburban setting from a distance of three miles would result in a low level of overall VC due to low levels of visual contrast, project dominance and view disruption as seen from KOP-J3.

Night Lighting Source Intensity Limitations for the North, Center and South Areas

In addition to the analysis of night lighting for KOP-J1, KOP-J2 and KOP-J3, source intensity limitations for night lighting in different landscape settings established by the ILE are compared to the source intensities of the L-810 and L-864 aviation lights proposed for the Modified Project in Table 4.5-4 below.

~~The area around the Whirlwind Substation (North Area) and the ANF (Center Area) are considered to be “dark sky” areas due to the remoteness of the Whirlwind Substation area, and the undeveloped character of the ANF. Near the Whirlwind Substation aviation lighting has been installed on one structure. In Aliso Canyon there would be two structures with aviation lights on NFS lands and two structures with aviation lights on private inholdings. KOPs J1 and J2 indicate that the aviation lights near the Whirlwind Substation and within the ANF would be visible for miles and would affect the “dark sky” character of these remote landscapes. Lights from the towers in Aliso Canyon would be seen from within the canyon and from higher elevations to the south. The flashing and steady burning lights would be noticeable from the PCT, which parallels the ridgeline to the south between Mill Creek Summit and Mount Gleason. The tower lights would change the “dark sky” character of the PCT in this area and introduce new night lighting that would detract from the existing landscape character of the PCT in this area. Recreationists that hike or camp along this segment of the PCT would notice the flashing and steady burning lights in the background distance zone to the north (some PCT hikers hike at night to avoid daytime heat). The aviation lights would change the “dark sky” experience of this section of the PCT and the SIO level for this area would not be achieved.~~

~~In addition to the analysis of night lighting for KOP J1 and KOP J2, source intensity limitations for night lighting in different landscape settings established by the ILE are compared to the source~~

intensities of the L 810 and L 864 aviation lights proposed for the Modified Project in Table 4.5 4 below. The Project Description in Section 2.3.2.1 states that the minimum intensity of the L 810 (a steady burning red light) is 32.5 candelas (or 0.0325 kilocandelas [keds]) which could be seen for a minimum of approximately one mile under overcast conditions, and much further under clear sky conditions (Jose to provide citation). As shown in Table 4.5 4, the minimum intensity of the L 810 steady burning aviation light would be below the pre and post curfew source intensity limitations for all the environmental zones except E1. The E1 zone is used for the Whirlwind Substation area and the ANF since they are considered “dark sky” areas where there is minimal night lighting. The L 810 would exceed the post curfew (after 11:00 p.m.) limit of zero candelas in the ANF.

For the L 864 flashing aviation lights on top of towers over 150 feet tall, the source intensity would range from 2,000 candelas plus or minus 25 percent (1,500 2,500 candela [1.5 2.5 ked]) which could be seen for a minimum of approximately three miles under overcast conditions, and much further under clear sky conditions (Jose to provide citation). The L 864 lights would be below or meet the recommended limitations in all zones for the pre curfew hours. During post curfew hours, however, these lights would exceed the recommended limitations in Zones E1, E2 and E3, which include the North and Center Areas, and most of the South Area, except along the highly urbanized and industrial areas near major travel corridors such as the I 605 and I 210 where the aviation lights would meet the source intensity limit. The area around the Vincent Substation and the ANF (Center Area) are considered in this analysis to be “dark sky” areas due to the remote rural character of the Vincent Substation area, and near-wildland character of the ANF. The area around the Whirlwind Substation has a remote rural character, but has been impacted by aviation lighting associated with nearby wind farm development to the north and east along Rosamond Boulevard and 170th Street West. Near the Vincent Substation aviation lighting has been installed on one structure and five more would be lit with implementation of the Modified Project. In Aliso Canyon, there would be two structures with aviation lights on NFS lands and two structures with aviation lights on private inholdings. Results from the VC analysis for KOPs J1, J2 and J3 indicate that the aviation lights near the Vincent Substation and within the ANF would be visible for several miles under clear skies and would affect the “dark sky” character of these rural-remote and near-wildland landscapes.

Flashing red lights from the towers in Aliso Canyon in Segment 11 would be seen from within the canyon and from higher elevations to the south. Steady-burning lights would not be seen since only flashing red lights would be used on towers within Segment 11 on NFS lands to minimize avian collisions. The flashing lights would be noticeable from about three miles away on the PCT, which parallels the ridgeline to the south between Mill Creek Summit and Mount Gleason. The tower lights would change the “dark sky” experience of the PCT in this area (since there are no other lit tower structures within the ANF) and introduce new flashing red night lighting that would detract from the existing landscape character of the PCT in this area. Recreationists that hike or camp along this segment of the PCT would notice the flashing lights in the background distance zone to the north (some PCT hikers hike at night to avoid daytime heat). The flashing red aviation lights would change the “dark sky” experience of this section of the PCT and the SIO level for this area would not be achieved.

Table 4.5-4. Comparison of Institute of Lighting Engineer's Source Intensity Limitations for Exterior Lighting with Modified Project Aviation Lighting

ILE Environmental Zones	Project Areas	ILE Source Intensity I [kcd] ¹ for Pre-curfew and Post-curfew hours ²		L-810 – Minimum Intensity of 32.5 candela (0.0325 kcd) ³	L-864 – Range of 1,500–2,500 candela (1.5–2.5 kcd) ⁴
E1 – Intrinsically dark landscapes – National Parks, areas of outstanding beauty, etc.	North Center Area– Whirlwind/Vincent Substation and Center Area (ANF)– Aliso Canyon (ANF)	Pre-curfew	2.5	below limit	meets limit
		Post-curfew	0	<i>exceeds limit</i>	<i>exceeds limit</i>
E2 – Low district brightness areas – rural, small village, or relatively dark urban locations	North Area– residential communities	Pre-curfew	7.5	below limit	below limit
		Post-curfew	0.5	below limit	<i>exceeds limit</i>
E3 – Medium district brightness areas – Small town centers or urban locations	South Area– residential communities	Pre-curfew	10	below limit	meets limit
		Post-curfew	1.0	below limit	<i>exceeds limit</i>
E4 – High district brightness areas – town/city centers with high levels of night-time activity	South Area– travel corridors (I-605 & I-210)	Pre-curfew	25	below	below limit
		Post-curfew	2.5	below limit	meets limit

Source: ILE, 2005.

1 - Source Intensity – This applies to each source in the potentially obtrusive direction, outside of the area being lit.

2 - Curfew = 23.00 hours, or 11pm. Curfew is the time after which stricter requirements (for the control of obtrusive light) will apply.

3 - Steady-burning red obstruction light

4 - Flashing red obstruction light, 20-40 flashes per minute (FPM)

For the L-864 flashing aviation lights on top of towers over 150 feet tall, the source intensity would range from 2,000 candelas plus or minus 25 percent (1,500–2,500 candela [1.5–2.5 kcd]), which could be seen for a minimum of approximately three miles and a maximum of up to 10 miles under clear skies (Weimer, 2013). The L-864 lights would be below or meet the recommended limitations in all zones for the pre-curfew hours. During post-curfew hours however, these lights would exceed the recommended limitations in Zones E1, E2 and E3, which include the North and Center Areas, and most of the South Area, except along the highly urbanized and industrial areas near major travel corridors such as the I-605 and I-210 where the aviation lights would meet the source intensity limit.

The comparison of Modified Project aviation lights to source intensity recommendations by the ILE indicates that the L-810 steady burning lights at the minimum intensity would not adversely affect pre- and post-curfew conditions in the North and South areas, but would exceed the guidelines (E1) that apply to the ~~Whirlwind lights installed in the Vincent Substation area and the ANF. The transmission structures in the ANF at Aliso Canyon would not have L-810 lights (only L-864 lights), so there would be no effect on dark sky conditions from the L-810 lights in the Vincent Substation area.~~ Conversely, the L-864 flashing lights would adversely affect post-curfew conditions in all the North, Center and South Areas, except the high district brightness areas (E4) in the vicinity of the I-605 and I-210 travel corridors.

Approved Project Mitigation Measure for Impact V-9

V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.

Indirect Effects

There would be no indirect effects associated with Impact V-9 in the North, Center, or South Areas.

CEQA Significance Conclusion

Impact V-9 is a new impact under the Modified Project that evaluates whether aviation lights on Project towers would create a new source of substantial night light that would adversely affect nighttime views. Visual impacts under Impact V-9 were found to be adverse and significant in the North, Center, and South Areas based on the V/C of the KOPs and source intensity light evaluation.

~~The KOP analysis indicates there would be a low to moderate level of VC that would occur due to aviation lighting in the North and South Areas. In the “dark sky” areas (considered to be areas where there is minimal night lighting), such as the area near of the Whirlwind Substation, Vincent Substation and in the ANF near Aliso Canyon (which can be seen from the PCT and other recreation use areas in the ANF), the ANF, would be affected by the introduction of aviation lights on transmission towers: six towers near the Vincent Substation, and four towers in Aliso Canyon. visual effects would be adverse due to the remote character of the Whirlwind Substation and the undeveloped character of the ANF where aviation lights would be seen from the PCT and other recreation use areas.~~

~~The Source intensity light analysis of the light limitations would be exceeded by the L-864 and L-810 lights found in the guidance thresholds established by ILE for intrinsically dark areas, of the ANF and near the Whirlwind Substation would be exceeded during post-curfew hours in the Vincent Substation area. The source intensity light evaluation of the L-864 lights found post-curfew guidance thresholds would be exceeded in the North (Palmdale), Center (Vincent Substation, the ANF in Aliso Canyon), and In the rural and suburban areas of the North and South Areas (Tehachapi, Palmdale, Duarte, Hacienda Heights, La Habra, Rowland Heights, Chino Hills, Chino and Ontario) Areas. , the source intensity of the L-864 lights would exceed post curfew limits. Based on the exceedance of the L-864 light thresholds in dark sky rural and suburban areas, and the exceedance of the L-810 lights in the dark sky areas, the visual impact of the aviation lights was found to be adverse and significant in the North, Center and South Areas.~~

On NFS lands, Mitigation Measure V-3b would apply (*On NFS lands, provide restoration compensation for impacts to landscape character and visual quality*); however, this mitigation would not lower the impact of the night lighting to a less-than-significant level. On non-NFS lands, there are no reasonable mitigation measures that could minimize the night lighting impacts of the aviation lights. Under the Modified Project, there is no practicable mitigation that would reduce or avoid the visual impact of Impact V-9. As a result, the Modified Project would result in a new adverse, significant and unavoidable (Class I) visual impact that was not identified in the Final EIR and Final EIS.

Substantially damage scenic resources within a scenic highway viewshed or a national scenic trail viewshed (including, but not limited to, trees, rock outcroppings, and historic buildings) (Criterion VIS3)

Impact V-6: The Project would contribute to the long-term loss or degradation of a scenic highway viewshed or a national scenic trail viewshed.

North Area

In the North Area, there are no officially designated state scenic highways. In the currently adopted Los Angeles County General Plan (LA Co., 1974), Elizabeth Lake Road is designated a “Priority 1” scenic route, and 110th Street West is designated a “Priority 2” scenic route, both of which are proposed for further study. However, it is important to note that the General Plan update, currently out for public

review, does not include a Scenic Highway Element, nor are there designations of Priority 1 and Priority 2 scenic routes. It is only State designated highways that are mentioned in the General Plan revision, none of which are in the North Area (LA Co., 2012).

Under the Modified Project, there would be one span of marker balls over the Elizabeth Lake Road corridor. No aviation lighting would be seen from this viewshed. Travelers on the road would experience brief duration views that would range from foreground-to-immediate foreground views as they travel under the T/L.

Center Area

In the Center Area, the Modified Project would cross directly over the PCT near Mount Gleason (Segment 11) and at Mill Creek Summit (Segment 6) where spans of marker balls would be seen. There would be no aviation lights associated with the towers in these locations. Forest Plan Standard ANF S1 calls for the protection of scenic integrity of foreground views from the PCT and designated viewpoints, and states that where practicable, nonconforming land uses within the viewshed of the trail should be avoided. In the Final EIR and Final EIS it was determined that the towers at Mount Gleason were adequately distant from the PCT, and at Mill Creek Summit there was no other practicable location for the T/L towers; therefore, the Approved Project did not conflict with Forest Plan Standard S1. Similarly, for the Modified Project there is no other practicable location for the marker balls, as the FAA has recommended marker balls in this location; therefore, the Modified Project would not be in conflict with Forest Plan Standard S1. Marker balls would be seen from two areas of the Angeles Crest Scenic Byway (State Route 2). North of Gould, marker balls would be seen on Segment 11 in the immediate foreground and foreground of the scenic byway for about 2.5 miles as the road winds under and parallel to Segment 11 and both descend the mountainside. South of Vetter Mountain, marker balls would be seen on three spans of Segment 6 (MP 16-17) in the foreground distance zone of the scenic byway. No aviation lights would be seen from these locations.

Marker balls would be seen from two national recreation trails within the ANF. There would be marker balls on eight spans of Segment 6 between MP 19-22, which is seen from Cogswell Reservoir where the National Scenic Bikeway ends. Users of this trail would experience middleground views of the Project T/L skylined above the ridge. Marker balls would be noticeable and attract attention. No aviation lights would be seen from this location. Marker balls would also be visible from the Silver Moccasin National Recreation Trail where Segment 6 crosses over the trail at MP 17.2, and two spans cross over the trail in the immediate foreground and foreground. Trail users would experience near views of the marker balls for several minutes while hiking through this area. The visibility of marker balls would be particularly impacting where the Moccasin Trail and Angeles Crest Scenic Byway (State Route 2) converge at an open area where there are pull-outs, and an OHV trailhead as well. Due to the openness of the area, and the intensity of use, the marker balls would affect the views of a high number of Forest visitors.

Where Segments 6 and 11 cross scenic highways, scenic byways, and national recreation trails marker balls would be seen in the immediate foreground and foreground and would be noticeable and draw attention. The Modified Project would not implement Forest Plan Strategies LM3 (Landscape Character) and Trans 1 (Transportation System). LM3 (Landscape Character) calls for the maintenance of the character of key places to preserve their intact nature and valued attributes by promoting the planning and improvement of infrastructure along federal and state scenic travel routes. Under Trans 1 (Transportation System), the Forest Plan strategies are to plan, design, construct, and maintain NFS

roads and trails to meet plan objectives, to promote sustainable resource conditions, and to safely accommodate anticipated levels and types of use, and to implement the Corridor Management Plan for the Angeles Crest Scenic Byway (refer to the Final EIR and Final EIS for more information on the Corridor Management Plan). Under the Angeles Crest Scenic Byway Corridor Management Plan, National Forest scenic byways are classified as concern level 1, which indicates that the public is most concerned about alterations. The presence of marker balls on the T/Ls would have a noticeable and adverse effect on the visual quality of these scenic trails and highways.

South Area

In the South Area, a portion of the Orange Freeway (State Highway 57) is classified as “Eligible” for designation as a State Scenic Highway where it traverses largely undeveloped hills between Brea and Diamond Bar in Segment 8, Phase 4. Travelers on the Orange Freeway would experience foreground and immediate foreground views of marker balls on two spans of Segment 8, Phase 4 (MP 17) while traveling on this freeway. There would be no aviation lights in this location.

As mentioned above, the Scenic Highway Element of the currently adopted General Plan for Los Angeles County (LA Co., 1974) identifies several roads in the South Area that are designated as Priority 2 Scenic Routes where the Project crosses over these roads: Colima Road in Hacienda Heights, Hacienda Boulevard in La Habra Heights, and Harbor Boulevard in Rowland Heights. At Colima Road, there would be no aviation lights, but there would be a double span of marker balls over the road. At Hacienda Boulevard, there would be no aviation lights, but there would be a double span of marker balls crossing over the road. At Harbor Boulevard, near Fullerton Avenue, there would be marker balls on the span across the road, and there would be aviation lighting on the transmission structures supporting the span that crosses the road. These marker balls and aviation lights would be seen in the immediate foreground and foreground by thousands of drivers. However, as mentioned above, the General Plan 2035 public review draft (LA Co., 2012) no longer includes these designations.

Approved Project Mitigation Measure for Impact V-6

V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.

Indirect Effects

No indirect impacts are anticipated to occur under Impact V-6 in the North, Center and South Areas.

CEQA Significance Conclusion

Impact V-6 evaluates whether the Modified Project would contribute to the long-term loss or degradation of an officially designated scenic highway viewshed or a national scenic trail viewshed. The placement of marker balls and aviation lighting along the T/L corridor would have significant and unavoidable (Class I) visual impacts on the viewsheds of scenic highways and national scenic trails. The Modified Project would be seen from several scenic highways, trails, roads and corridors, and would also be visible within the viewsheds of these scenic travel corridors on both NFS lands and non-NFS lands. Mitigation Measure V-3b (*On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality*) would apply to NFS lands, but would not mitigate Impact V-6 to a less-than-significant level. There are no other feasible mitigation measures that would avoid or reduce these impacts to a less-than-significant level. Under the Approved Project Impact V-6 resulted in a less-than-significant (Class II) impact with application of Mitigation Measure V-3b. The Modified Project,

however, would result in a new Class I impact under Impact V-6 due to an increase in the severity of the impact identified under the Approved Project.

Conflict with applicable adopted city, county, State, or federal plans, policies, regulations, or standards applicable to the protection and management of visual quality in the landscape (Criterion VIS4)

Impact V-7: The Project would conflict with established visual resource management plans or landscape conservation plans.

Project-related construction and operational activity that would occur within the jurisdictional boundaries of an established Resource Management Plan or Conservation Plan, and that would not be in compliance with such plans, would cause an impact under Criterion VIS4. As described in Section 4.5.2 above and in Appendix C of the *Visual Resources Specialist Report* (Anderson, 2009), there are local laws, regulations, and standards for the protection and enhancement of visual resources. The majority of these laws, regulations, and standards are managed by city or county governments, and a few are managed by the State Department of Transportation for scenic highways.

The Final EIR and Final EIS for the Approved Project found significant impacts under Impact V-7 in the Center and South Areas, and no impacts in the North Area. In the Center Area, approval of the Project-specific amendment for S9 for the Approved Project resulted in Impact V-7 on NFS lands being reduced to a less-than-significant level. In the South Area the Approved Project resulted in a significant and unavoidable (Class I) impact under Impact V-7.

North Area

Table 4.5-3 above and Appendix C of the *Visual Resources Specialist Report* (Anderson, 2009) provide applicable federal and State laws, regulations and standards for visual resources in the North Area. There are no established Visual Resource Management Plans or Visual Resource Conservation Plans within the North Area that were identified in the Final EIR and Final EIS as being in conflict with the Approved Project. A review of revised and updated plans (Section 4.5.2) did not identify any new resource management plans or visual resource conservation plans applicable to the Modified Project in the North Area.

Center Area

Table 4.5-3 above and Appendix C of the *Visual Resources Specialist Report* (Anderson, 2009) provide applicable federal and State laws, regulations and standards for visual resources in the Center Area. The Center Area lies within the jurisdictional boundaries of the ANF. The Forest Plan is the established Visual Resource Management Plan that was identified in the Final EIR and Final EIS as being in conflict with the Approved Project. A review of revised and updated plans (Section 4.5.2) did not identify any new resource management plans or visual resource conservation plans applicable to the Modified Project in the ~~North~~ Center Area.

The following Forest Plan Standards apply to visual resource management on the ANF:

S9: Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map.

S10: Scenic Integrity Objectives will be met with the following exceptions: Minor adjustments not-to-exceed a drop of one SIO level is allowable with Forest Supervisor's approval.

S1: Pacific Crest Trail: Protect the scenic integrity of foreground views as well as from designated viewpoints. Where practicable, avoid establishing nonconforming land uses within the viewshed of the trail.

Forest Plan Standard S9

Forest Plan Standard S9 calls for the design of management activities to meet the SIOs established in the Forest Plan (refer to Figure 4.5-2). SIOs represent the minimum Forest Plan standard of scenic integrity to which landscapes are to be managed. Tables 4.5-5 and 4.5-6 below and the following graphs (Exhibits 21 and 32) summarize the visual changes in SIO levels for Segments 6 and 11, respectively. The tables show SIOs under the Forest Plan, followed by the resulting SIOs under the Approved Project (as determined in the Final EIS), and the changes in SIOs that would occur under the Modified Project. The tables show that the majority of Segment 6 would drop to an unacceptably low level of scenic integrity, and the majority of Segment 11 would drop to a Very Low SIO under the Modified Project. These SIO levels would not be consistent with the Forest Plan.

Under Impact V-7 the Final EIR and Final EIS found the Approved Project to be inconsistent with Forest Plan Standard S9. In the Forest Service ROD for the Approved Project, a Project-specific amendment to the Forest Plan for Standard S9 was made that resulted in the Approved Project being consistent with the Forest Plan. The Modified Project would contribute to the adverse visual effect of the Approved Project and SIOs would continue to decline and not meet Standard S9. The Forest Service has determined that the Project-specific Forest Plan amendment for the Approved Project would also apply to the Modified Project (36 CFR 219.17 (c)). Therefore, the Project-specific Forest Plan amendment would make the Modified Project consistent with the Forest Plan.

Forest Plan Standard S10

Standard S10 allows for SIOs to drop one level with Forest Supervisor's approval. Under the Approved Project, SIOs dropped more than one level; therefore, this standard did not apply and was not addressed in the ROD. Under the Modified Project, Standard S10 would continue to not apply as the effects are not minor, and when combined with the Approved Project exceed a one-level-drop in SIOs.

Forest Plan Standard S1

Forest Plan Standard S1 requires the protection of ~~“scenic integrity of foreground views as well as from~~ and designated viewpoints. ~~be protected and, w~~Where practicable, ~~to~~ avoid establishing nonconforming land uses within the viewshed of the trail”. The Modified Project would cross directly over the PCT near Mount Gleason (Segment 11) and at Mill Creek Summit (Segment 6), ~~where~~ and spans of marker balls would be seen in the immediate foreground and foreground. ~~There would be no aviation lights associated with the towers in these locations.~~

Table 4.5-5. Segment 6 Summary of Scenic Integrity Under the Forest Plan, Approved Project, Modified Project, and Corresponding KOPs Showing a Portion of the MP Segments

Milepost (MP) Segments ¹	Length (miles)	ANF Forest Plan SIOs ²		Scenic Integrity Under the Approved Project (Final EIS Table 13.4-5)				Transmission Structures with Marker Ball Spans Under the Modified Project ³		No. of Marker Balls	Span Length (feet)	Resulting Scenic Integrity Under the Modified Project by MP Segment		
		H	M	M	L	VL	UL					L	VL	UL
<i>Segment 6</i>														
1.45-1.68	0.23	H					UL	—	—	0	0			UL
2.76-3.50	0.74	H					UL	RH-V Const 16	RH-V Const 17	5	899			UL
3.50-3.88	0.38	H			L			—	—	0	0	L		
3.88-5.34	1.46	H					UL	RH-V Const19x	RH-V Const 20	5	988			UL
								RH-V Const 20	RH-V Const 21	13	2,258			
								RH-V Const 22	RH-V Const 23	11	1,984			
								RH-V Const 23	RH-V Const 24	11	1,816			
								ML-V Const19	ML-V Const 20	7	1,140			
								ML-V Const 20	RH-V Const 21	13	2,165			
								RH-V1 M31-T1	RH-V1M31-T2	5	947			
								RH-V1 M31T2	RH-V1 M31-T2	13	3,205			
5.63-6.67	1.04	H					UL	RH-V Const 25	RH-V Const 26	5	974			UL
								RH-V Const 29	RH-V Const 30 (58%)	5	972			
6.68-6.81	0.13	H					UL	RH-V Const 29	RH-V Const 30 (42%)	4	704			UL
6.99-10.60	3.61	H					UL	RH-V Const 33	RH-V Const 34	11	1,957			UL
								RH-V Const 37	RH-V Const 38	13	2,311			
								RH-V Const 38	RH-V Const 39x	3	671			
								RH-V Const 41	RH-V Const 42	11	1,857			
								RH-V Const 46	RH-V Const 47	7	1,198			
								RH-V Const 47	RH-V Const 48	9	1,450			
								RH-V Const 48	RH-V Const 49 (25%)	5	829			
10.60-10.75	0.15		M				UL	RH-V Const 48	RH-V Const 49 (25%)	5	829			UL
10.75-11.50	0.75	H				VL		RH-V Const 48	RH-V Const 49 (50%)	9	1,658			UL
								RH-V Const 49	RH-V Const 50	5	826			
								RH-V Const 50	RH-V Const 51	3	393			
11.50-12.08	0.58	H			L			RH-V Const 51	RH-V Const 52	7	1,289		VL	
								RH-V Const 52	RH-V Const 53 (50%)	7	1,193			
12.08-12.31	0.23		M		L			RH-V Const 52	RH-V Const 53 (50%)	6	1,192		VL	

Table 4.5-5. Segment 6 Summary of Scenic Integrity Under the Forest Plan, Approved Project, Modified Project, and Corresponding KOPs Showing a Portion of the MP Segments

Milepost (MP) Segments ¹	Length (miles)	ANF Forest Plan SIOs ²	Scenic Integrity Under the Approved Project (Final EIS Table 13.4-5)	Transmission Structures with Marker Ball Spans Under the Modified Project ³		No. of Marker Balls	Span Length (feet)	Resulting Scenic Integrity Under the Modified Project by MP Segment
12.31-13.10	0.79	H	L	RH-V Const 53 RH-V Const 56	RH-V Const 54 RH-V Const 57	13 7	2,383 1,198	VL
13.10-13.51	0.41	H	UL	RH-V Const 58	RH-V Const 59 (22%)	2	317	UL
13.51-13.62	0.11	M	UL	RH-V Const 58	RH-V Const 59 (40%)	4	581	UL
13.62-13.63	0.01	H	UL	RH-V Const 58	RH-V Const (4%)	0	0	UL
13.63-13.66	0.03	M	UL	RH-V Const 58	RH-V Const 59 (12%)	1	158	UL
13.66-17.60	3.94	H	UL	RH-V Const 58 RH-V Const 62 RH-V Const 63 RH-V Const 64 RH-V Const 65 RH-V Const 66 RH-V Const 69 RH-V Const 70 RH-V Const 71 RH-V Const 72 RH-V Const 73	RH-V Const 59 (22%) RH-V Const 63 RH-V Const 64 RH-V Const 65 RH-V Const 66 RH-V Const 69 RH-V Const 70 RH-V Const 71 RH-V Const 72 RH-V Const 73 RH-V Const 74	2 5 7 5 11 3 7 15 5 17 3	317 970 1,091 926 1,928 489 1,128 2,872 1,035 2,898 710	UL
17.60-18.00	0.40	H	VL	RH-V Const 74 RH-V Const 75	RH-V Const 75 RH-V Const 76	5 9	1,001 1,573	UL
18.00-19.00	1.00	H	M	RH-V Const 76 RH-V Const 77 RH-V Const 78	RH-V Const 77 RH-V Const 78 RH-V Const 79	5 7 17	1,070 1,336 2,904	L
19.00-21.40	2.40	H	L	RH-V Const 79 RH-V Const 80 RH-V Const 81 RH-V Const 82 RH-V Const 83 RH-V Const 84 RH-V Const 85 RH-V Const 86	RH-V Const 80 RH-V Const 81 RH-V Const 82 RH-V Const 83 RH-V Const 84 RH-V Const 85 RH-V Const 86 RH-V Const 87	9 5 5 11 11 9 5 9	1,512 756 1,043 1,828 1,867 1,752 980 1,712	VL

Table 4.5-5. Segment 6 Summary of Scenic Integrity Under the Forest Plan, Approved Project, Modified Project, and Corresponding KOPs Showing a Portion of the MP Segments

Milepost (MP) Segments ¹	Length (miles)	ANF Forest Plan SIOs ²	Scenic Integrity Under the Approved Project (Final EIS Table 13.4-5)					Transmission Structures with Marker Ball Spans Under the Modified Project ³		No. of Marker Balls	Span Length (feet)	Resulting Scenic Integrity Under the Modified Project by MP Segment		
21.40-24.10	2.70	H	M					RH-V Const 90	RH-V Const 91	13	2,279	L		
								RH-V Const 91	RH-V Const 93x	5	876			
								RH-V Const 93x	RH-V Const 95x	9	1,508			
								RH-V Const 95x	RH-V Const 96x	7	1,412			
								RH-V Const 96x	RH-V Const 99	9	1,791			
								RH-V Const 99	RH-V Const 100	15	2,543			
								RH-V Const 100	RH-V Const 101	9	1,728			
24.10-26.89	2.79	H	L					RH-V Const 103	RH-V Const 104	11	1,878	VL		
								RH-V Const 105x	RH-V Const 106	5	1,019			
								RH-V Const 106	RH-V Const 107x	13	2,399			
								RH-V Const 107x	RH-V Const 108	5	752			
								RH-V Const 108	RH-V Const 109	5	1,037			
								RH-V Const 109	RH-V Const 110	9	1,563			
								RH-V Const 110	RH-V Const 112	9	1,513			
RH-V Const 112	RH-V Const 113	13	2,397											
Total	23.88 ⁴	23.36	0.52	3.70	7.17	1.15	11.86			544	(98,683) 18.69 mi	4.08	6.79	13.01

1 - The MP segment lengths are continuous lengths of T/L corridor that changed in scenic integrity from the Forest Plan to the Approved Project (Final EIS Alternative 6). The same MP segments are used to show changes in scenic integrity from the Approved Project to the Modified Project. Discontinuous MP segments indicate there is private land that the T/L crosses and is not considered in the ANF analysis. The MP segments, Forest Plan SIOs, and Approved Project SIOs are the same as those in Final EIS Table 2.6-5 and Table 3.14-5 for Alternative 6.

2 - SIO Legend: H = High, M= Moderate, L = Low, VL = Very Low, UL = Unacceptably Low. Unacceptably Low is not an SIO objective, but an existing scenic integrity condition.

3 - Portions of the alignment between MP 3.88-5.34 contain 3 parallel T/Ls. Transmission towers within area have been subdivided into their respective T/L corridor.

4 - The length of Segment 6 is 0.15 mile shorter than the 24.03 length given in Table 3.14-5 of the Final EIS. This is due to a double counting error for MP 10.60-10.75 in the Final EIS.

Table 4.5-6. Segment 11 Summary of Scenic Integrity Under the Forest Plan, Approved Project, Modified Project, and Corresponding KOPs Showing Portions of the MP Segments

Milepost (MP) Segments ¹	Length (miles)	ANF Forest Plan SIOs ²		Scenic Integrity Under the Approved Project (Final EIS Table 13.4-5)				Transmission Structures with Marker Ball Spans Under the Modified Project ³		No. of Marker Balls	Span Length (feet)	Resulting Scenic Integrity Under the Modified Project by MP Segment		
		H	M	M	L	VL	UL					L	VL	UL
<i>Segment 11</i>														
1.50-2.25	0.75	H				VL		Const 6	Const 7	9	1,784			UL
2.25-3.00	0.75	H		M				Const 12	Const 13	7	1,114	L		
3.00-3.50	0.50	H				VL		Const 13	Const 14	5	872			UL
								Const 14	Const 15	13	2,497			
3.76-4.25	0.49	H				VL		Const 15	Const 16	3	677			UL
								Const 16	Const 17	3	608			
4.25-6.80	2.55	H			L			Const 21	Const 22	11	1,811		VL	
								Const 22	Const 23	9	1,613			
								Const 23	Const 24	9	1,654			
								Const 25	Const 26	7	1,181			
								Const 26	Const 27	5	872			
								Const 28	Const 29 (50%)	5	1,025			
6.80-6.85	0.05		M			VL		Const 28	Const 29 (25%)	3	512			UL
6.85-6.90	0.05	H				VL		Const 28	Const 29 (25%)	3	513			UL
6.90-8.73	1.83	H			L			Const 29	Const 30	9	1,729		VL	
								Const 31	Const 32	7	1,307			
								Const 32	Const 33	11	2,155			
8.73-9.92	1.19		M		L			Const 35	Const 36	5	897		VL	
								Const 36	Const 37	9	1,575			
								Const 39	Const 40	7	1,360			
9.92-10.90	0.98	H			L			Const 42	Const 43	5	903		VL	
12.85-15.16	2.31	H			L			Const 52	Const 53	21	3,633		VL	
								Const 54	Const 55	7	1,267			
								Const 55	Const 56	9	1,587			
								Const 56	Const 57	5	986			
								Const 57	Const 57	7	1,276			
								Const 58	Const 59 (68%)	10	1,944			
15.16-15.33	0.17		M		L			Const 58	Const 59 (32%)	5	898		VL	

Table 4.5-6. Segment 11 Summary of Scenic Integrity Under the Forest Plan, Approved Project, Modified Project, and Corresponding KOPs Showing Portions of the MP Segments

Milepost (MP) Segments ¹	Length (miles)	ANF Forest Plan SIOs ²	Scenic Integrity Under the Approved Project (Final EIS Table 13.4-5)					Transmission Structures with Marker Ball Spans Under the Modified Project ³		No. of Marker Balls	Span Length (feet)	Resulting Scenic Integrity Under the Modified Project by MP Segment		
15.33-18.70	3.37	H	L					Const 61	Const 62	13	2,258	VL		
								Const 62	Const 63	15	2,543			
								Const 63	Const 64	17	2,911			
								Const 64	Const 65	17	2,961			
								Const 65	Const 66	11	1,946			
								Const 66	Const 67	17	3,042			
19.25-19.74	0.49	H	UL					M0-T3	M0-T4	15	2,740	UL		
19.70-19.80	0.10	M	UL					M0-T4	M1-T1	9	1,443	UL		
19.82-20.28	0.46	H	UL					M1-T1	M1-T2	5	1,066	UL		
								M1-T2	M1-T3	9	1,441			
20.79-21.35	0.56	H	UL					M2-T1	M2-T2	11	2,088	UL		
21.80-22.62	0.82	H	UL					M2-T3	M3-T1	11	1,926	UL		
								M3-T1	M3-T2	3	518			
								M3-T2	M3-T3	15	2592			
23.05-23.41	0.36	H	UL					M4-T1	M4-T2	7	1,411	UL		
23.70-24.15	0.45	H	UL					M4-T3	M5-T1 (50%)	5	872	UL		
								M5-T1	M5-T2 (50%)	7	1,302			
24.35-24.54	0.19	H	UL					M5-T2	M5-T3	11	1860	UL		
Total	18.42	16.91	1.51	0.75	12.40	1.84	3.43	-	-	407	71,546 ft (13.55 mi)	0.75	15.40	5.27

1 - The MP segment lengths are continuous lengths of T/L corridor that changed in scenic integrity from the Forest Plan to the Approved Project (Final EIS Alternative 6). The same MP segments are used to show changes in scenic integrity from the Approved Project to the Modified Project. Discontinuous MP segments indicate there is private land that the T/L crosses and is not considered in the ANF analysis. The MP segments, Forest Plan SIOs, and Approved Project SIOs are the same as those in Final EIS Table 2.6-5 and Table 3.14-5 for Alternative 6.

2 - SIO Legend: H = High, M= Moderate, L = Low, VL = Very Low, UL = Unacceptably Low. Unacceptably Low is not an SIO objective, but an existing scenic integrity condition.

3 - Portions of the alignment between MP 3.88-5.34 contain 3 parallel T/Ls. Transmission towers within area have been subdivided into their respective T/L corridor.

Exhibit 24. Graphical Comparison of Segment 6 Approved Project and Modified Project SIO Levels

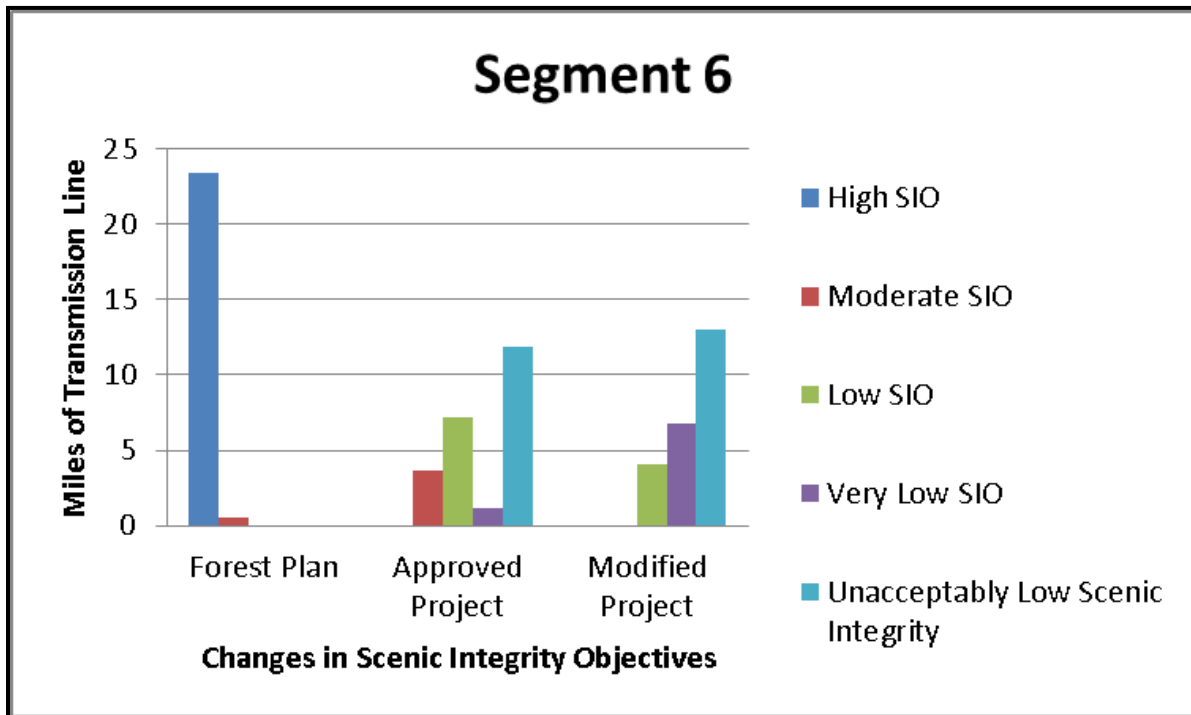
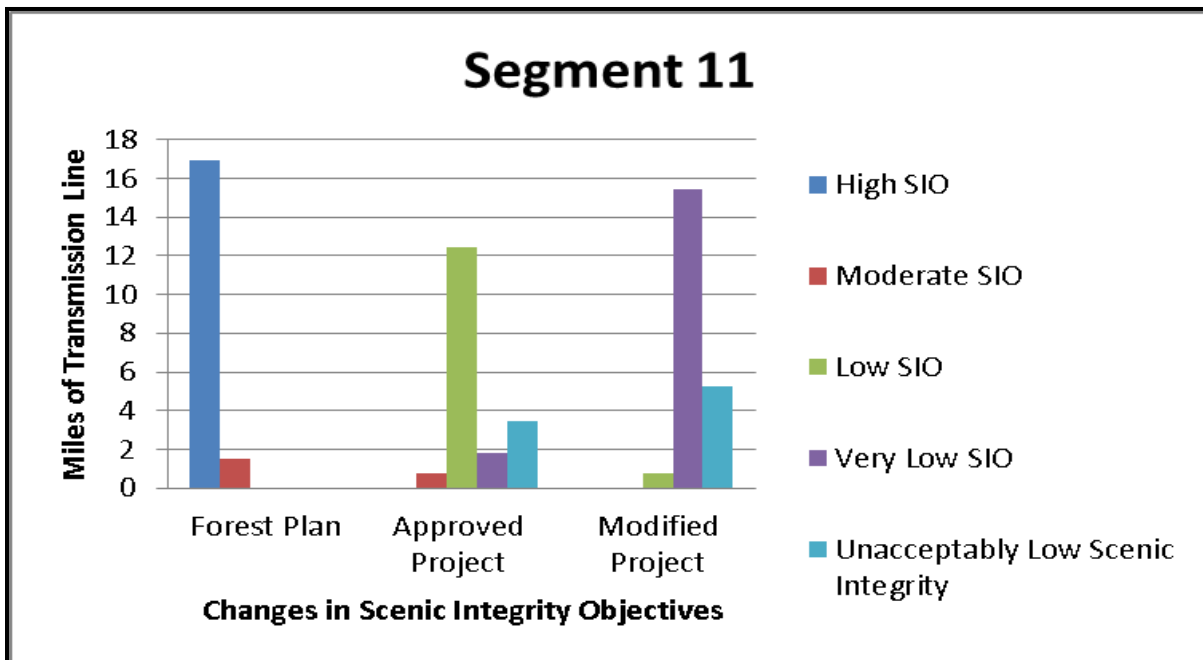


Exhibit 32. Graphical Comparison of Segment 11 Approved Project and Modified Project SIO Levels



~~In the Final EIR and Final EIS it was determined that the towers at Mount Gleason were adequately distant from the PCT, and at Mill Creek Summit there was no other practicable location for the T/L towers; therefore, the Approved Project concluded that no Project specific Forest Plan amendment was necessary. Since it was not practicable to relocate the towers near the PCT trail under the Approved Project, it is likewise not practicable to relocate the marker balls on the spans, and aviation lights on of the towers next to the PCT would similarly not be relocated under the Modified Project. Thus, the Modified Project would be consistent with just as Forest Plan Standard S1 was upheld for the Approved Project, it would similarly be upheld for the Modified Project and a Project-specific Forest Plan amendment would not be required for the Modified Project. under Forest Plan Standard S1.~~

South Area

The South Area does not include any lands within the ANF or other areas that are within the jurisdiction of the Forest Service and the Forest Plan is not applicable to the South Area. However, as described in Section 4.5.3 above and in Appendix C of the *Visual Resources Specialist Report* (Anderson, 2009), there are State and local laws, regulations, and standards for the protection and enhancement of visual resources. The majority of these laws, regulations, and standards are managed by city or county governments. State Scenic Highways are managed by the State Department of Transportation.

In the South Area the Final EIR and Final EIS found the Approved Project would conflict with Goal Visual-1 and Objective Visual-1.2 of the Puente Hills Landfill Native Habitat Preservation Authority (PHLHPA) Resource Management Plan (RMP). Goal Visual-1 states: Protect and enhance views and distinctive landscape features that contribute to the setting, character and visitor experience of the Preserve. Objective Visual-1.2 states: Protect views from within the Preserve to outlying properties. Evaluate proposed projects surrounding the Preserve with a priority to retain the visual quality of the Preserve's undeveloped landscape (PHLNHPA, 2007). Under Impact V-7, the Approved Project resulted in adverse impacts since there was no feasible mitigation. The visual effects of the Modified Project would continue to conflict with Goal Visual-1 and Objective Visual-1.2 of the PHLHPA RMP since marker balls and aviation lights could be seen from this area.

Approved Project Mitigation Measure for Impact V-7

V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.

Indirect Effects

No indirect effects associated with Impact V-7 would occur in the North, Center, or South Areas.

CEQA Significance Conclusion

Impact V-7 evaluates whether the Modified Project would conflict with established visual resource management plans or landscape conservation plans. In the North Area, there are no visual resource management plans that would be affected by the Modified Project; therefore, no impacts would occur under Impact V-7 in the North Area. In the Center Area, the Modified Project would result in further degradation of SIO levels. However, the application of the Project-specific Forest Plan amendment for Standard S9 would result in the Modified Project being consistent with the Forest Plan and therefore impacts under V-7 would be less than significant (Class III). In the South Area, the Modified Project

would be inconsistent with Visual Goal-1 and Visual Objective-1.2 of the PHLHPA RMP and would result in an adverse, significant and unavoidable (Class I) impact which would be the same as the Class I impact identified in the Final EIR and Final EIS.

4.5.5 Cumulative Effects Analysis

Geographic Extent

The geographic extent of the cumulative impacts analysis for visual resources is the same as the extent of the regional setting, as described in Section 4.5.1, above. That extent is defined as the viewsheds from which the Modified Project might be seen, including immediate foreground, foreground, middleground, and background viewing distances.

Existing Cumulative Conditions

North Area. The North Area description from the Approved Project (Final EIR and Final EIS Section 3.14.6.2) remains applicable to the Modified Project. Specific planned developments listed in the Final EIR and Final EIS have changed since approval of those document: the Ritter Ranch development is partially developed, although no housing has been built (grading only), and the Anaverde Development (also known as City Ranch) has been mostly developed and is occupied (KOP-A is located in this development).

Center Area. The relatively recent 2009 Station Fire burned over 160,577 acres (251 square miles) of NFS lands in the ANF, including approximately 65 percent of Segments 6 and 11 on NFS lands (27.9 miles of Project alignment) (Forest Service, 2010a). Much of the burnt area on the Forest has greened up with chaparral vegetation, although the fire resulted in a loss of mature trees and forested areas. The potential effects of the Station Fire on the TRTP were analyzed in the TRTP Supplemental Draft EIS (Forest Service, 2010a) which found SIOs would be affected by the Station Fire due to a loss of vegetative screening and more severe impacts from road construction due to unstable soils resulting from the fire. Today, fire scars are most apparent when entering the Forest from the north and traveling south along the Angeles Crest Highway. Visual scars in the landscape include the loss of mature forest character and changes in vegetative communities resulting in degradation of visual quality.

South Area. The South Area remains intact, as described in the Final EIR and Final EIS.

Reasonably Foreseeable Future Projects and Changes

As discussed in Section 3.0, ongoing development throughout the cumulative effects area for visual resources is dominated by residential developments, clustered in and around community developments on non-NFS lands, as well as development of wind and solar resources and transmission systems to distribute the energy generated by those resources. The trend in energy development and residential development is representative of reasonably foreseeable future projects requiring the development of new high-voltage transmission systems and the possible marking of such systems with marker balls and aviation lighting to protect aviation safety. The types of cumulative projects that are expected to occur in the North, Center, and South Areas, and population growth projections are described in Section 3.0 and shown in Figures 3.5-1a through 3.5-1d.

Cumulative Impact Analysis

The Final EIR and Final EIS analysis concluded that visual impacts associated with the Approved Project: Impacts V-1 through V-7 would be cumulative in nature since they would combine with similar impacts of other projects (Refer to Final EIR and Final EIS Section 3.14.6.1 for more information). As stated above, cumulative conditions described under the Approved Project remain intact for the Modified Project, except for the Station Fire which changed conditions on the ANF. For the Modified Project, the visual impact of marker balls, aviation lights and power sources to the Approved Project have the potential to combine with impacts of other projects listed in Section 3, such as local community residential and commercial projects, new T/Ls, and proposed light rail systems in the North and South areas of the Project. In the Center area there would be restoration and rehabilitation projects that could combine with the impacts of the Modified Project.

- **Temporary visibility of construction activities and equipment involved with the Project would alter the landscape character and visual quality of landscape views (Impact V-1).** Construction activities associated with the Approved Project were determined to be visible, attract attention temporarily, and have the potential to combine with ongoing development throughout the cumulative effects area, and therefore were determined to be cumulatively adverse and significant (Class I). Ongoing development throughout the cumulative effects area for visual resources is dominated by residential developments clustered in and around community developments, and could be affected by large scale public works projects for light rail system in the North and South areas. In the Center Area, on NFS lands, restoration and rehabilitation activities could occur on areas burned during the Station Fire. While the construction and installation of marker balls, aviation lights and aviation light power sources would be adverse but would result in less-than-significant visual impacts (Class III). The Modified Project would be constructed in conjunction with the Approved Project and the other projects described above, and would contribute to cumulative construction impacts. However, the cumulative impact of the Modified Project would not substantially increase the severity of cumulative construction impacts, and would not change the determination of the Class I cumulative impact under Impact V-1 identified in the Final EIR and Final EIS.
- **For a landscape with an existing transmission line, increased structure size and new materials would result in adverse visual effects (Impact V-3).** Under the Approved Project, V-3 impacts were determined to result in permanent visual scars that would be visible and attract attention and therefore was determined to be cumulatively adverse and significant (Class I). Redesign of transmission towers in Segment 8, Phase 3 (8A and 8C) under the Modified Project would result in minor visual effects that would be adverse, but less-than-significant (Class III). The Modified Project would combine with future residential and commercial development in the vicinity of Segment 8, Phase 3, but this would not result in significant cumulative impacts. The Modified Project would not substantially increase the severity of cumulative visual impacts under Impact V-3 and would not change the determination of the Class I cumulative impact under Impact V-3 identified in the Final EIR and Final EIS.
- **The Project would contribute to the long-term loss or degradation of a scenic highway viewshed or national scenic trail viewshed (Impact V-6).** Cumulative impacts under the Approved Project for Impact V-6 were found to be adverse and mitigable (Class II) due to Mitigation Measure V-3b. The visual effect of the Modified Project on scenic highways and trails is found to be adverse and significant (Class I) due to the visibility of marker balls and aviation lights from designated scenic highways and trails in the Center and South Areas. In the Center Area, recovery and reconstruction projects associated with the Station Fire would combine with the Modified Project to further impact cumulatively the landscape character of scenic highways and trails within the ANF. In the South Area, development related to new residential, commercial, industrial and public works projects (high speed rail projects) in and near scenic corridors in combination to the Modified Project would result in significantly cumulative effects on scenic trails and highways. The combination of the Modified Project effects with the Approved Project and other existing and future development projects would result in cumulatively significant and adverse (Class I) visual impacts. This finding changes the determination of the Class II cumulative impact under Impact V-6 identified in the Final EIR and Final EIS.

- **The Project would conflict with established visual resource management plans or landscape conservation plans (Impact V-7).** In the North Area there are no established resource management or conservation plans, therefore existing and future projects would not add cumulative visual effects to Impact V-7. In the Center Area, in the ANF the Approved and Modified Projects were both found to be inconsistent with the Forest Plan, but have been made consistent with the Project-specific Forest Plan amendment to Standard S9. Therefore, there is no cumulative visual effect under Impact V-7. In the South Area, the Modified Project and Approved Project would cross lands administered by the PHLNHPA and would have cumulatively significant effects (Class I) on the Goals and Objectives of the PHLNHPA RMP which call for the protection of views and the priority to retain the visual quality of the Preserve's undeveloped landscape character. The Modified Project, like the Approved Project, would result in cumulatively significant visual impacts under Impact V-7 (Class I) since it would not be consistent with the PHLNHPA RMP; however, the Modified Project would not change the determination of the Class I cumulative impact under Impact V-7 identified in the Final EIR and EIS.
- **The addition of marker balls to transmission line spans and aviation lighting power sources to transmission towers would alter the landscape character and visual quality of landscape views (Impact V-8, (Impact V-3 PROXY).** Under the Approved Project, V-3 impacts (for which V-8 is a proxy) were determined to be cumulatively adverse and significant (Class I). Under the Modified Project, the placement of 2,248 marker balls across 276 spans of T/L, in addition to existing and future residential, commercial and industrial development in the North and South Areas, and electrical infrastructure development and upgrading in the Center Area that could include possible FAA marker balls on spans of electrical infrastructure development in the future, would adversely affect natural-appearing landscape character and visual quality, and would be cumulatively adverse and significant (Class I) under the Modified Project. The Modified Project would substantially increase the severity of cumulative visual impacts under Impact V-3 (for which Impact V-8 is a proxy) but would not change the determination of the Class I cumulative impact under Impact V-3 identified in the Final EIR and Final EIS and does not result in a new cumulative impact under Impact V-8.
- **The addition of aviation lights on transmission towers would affect nighttime views in the area (Impact V-9, NEW).** The placement of aviation lights on 90 towers of the Modified Project, in addition to existing and future night lighting associated with residential, commercial, industrial and electrical infrastructure development and upgrades, including possible FAA aviation lights on new electrical infrastructure development, would adversely affect nighttime views and would be cumulatively adverse and significant (Class I). This is a new cumulatively significant impact (Class I) that is not part of the determination of impacts in the Final EIR and Final EIS.

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

There are no additional feasible mitigation measures that could be imposed on the Modified Project to further reduce its contribution to cumulative visual effects. All feasible visual mitigation measures have been recommended to mitigate impacts (Mitigation Measures V-1, V2-b and V-3b, and V-8).

4.5.6 Comparison of Alternatives

This comparison of alternatives focuses on the differences between the Approved Project (No Project Modifications/No Action Alternative) and the changes that would result with implementation of the Modified Project. Table 4.5-7 provides a side-by-side comparison, summarizing the analysis presented above in Sections 4.5.4 and 4.5.5.

Table 4.5-7. Comparison of Alternatives – Visual Resources

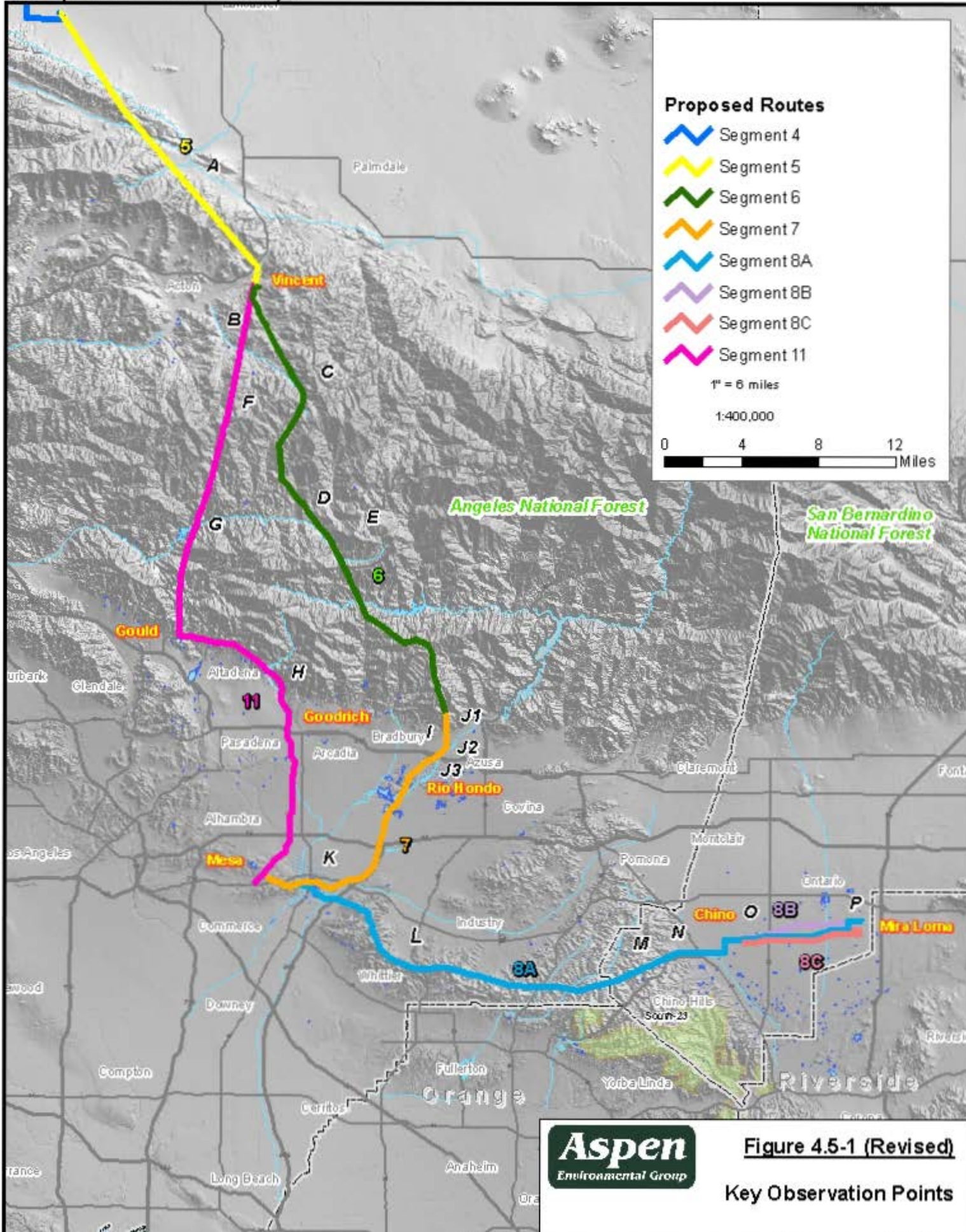
Component / Impact	Approved Project ¹ (No Project / No Action Alternative)	Modified Project
Structures with Aviation Lights	0	90
T/L Spans with FAA Marker Balls	0	276
Total Marker Balls	0	2,248
Max. Helicopter Hours/Day	141 241	151 251
Helicopter Use – Working Hours	13,971	14,799 (828 additional)
Total Helicopter Use (includes idle hours)	15,317	16,500 (1,183 additional)
Temporary visual contrast resulting from construction activities and equipment	Project construction activities, including road improvements, heavy equipment use, and helicopter staging areas would be visible from sensitive receptor locations as strong visual contrast.	Existing approved areas would be utilized to support marker ball and aviation lighting construction activities; no additional ground disturbance. Redesigned structures in Segment 8, Phase 3 would result in minor alterations to construction techniques in the same locations as the Approved Project. Minimal changes in visual contrast.
Visual contrast due to the addition of marker balls to T/L spans and aviation lighting power sources to transmission towers	No impact as marker balls and power sources for aviation lighting would not be installed.	Marker balls would increase the prominence and industrial character of the T/L; scenic quality on NFS lands and non-NFS lands would decline. Increase in impact significance.
Visual contrast due to increasing T/L structure size and/or new materials where T/L structures currently exist	Approved Project TSPs and LSTs result in increased prominence and industrial character; structure skylining; backdrop landscape obstruction; lower scenic integrity conditions in the ANF; Project-specific Forest Plan amendments for Standard S9.	Redesigned structures in Segment 8A, Phase 3 would result in low visual contrast, project dominance, view blockage, and disruption; no appreciable increase in impacts compared to the Approved Project.
Visual contrast due to new source of lighting affecting nighttime views	Lighting limited to substations; utilized only for maintenance outages or emergency repairs occurring at night.	New aviation lighting on Project structures would create new sources of nighttime lighting; L-864 lights would exceed source intensity guidelines for post-curfew times in low to medium brightness areas. New adverse and significant impact not identified under the Approved Project.
Long-term loss or degradation of scenic viewshed(s)	Directly degrades and causes long-term loss of scenic quality of multiple designated or eligible scenic highways and trails.	Addition of marker balls and aviation lights would contribute to and increase the degradation of scenic viewsheds resulting in a significant long-term loss of scenic quality. New adverse and significant impact not identified under the Approved Project.
Non-compliance with established visual resources management plans or landscape conservation plans	Inconsistency with Forest Plan Standard (Land Management Plan, Part 3) S9 required a Project-specific plan amendment as part of the ROD for the Approved Project. Inconsistent with the Goal Visual-1 and Objective Visual-1.2 of the Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan.	Addition of marker balls and aviation lights would further degrade SIOs on NFS lands. Project-specific Forest Plan amendment would apply to the Modified Project; therefore it would also be consistent with the Forest Plan. Results in greater inconsistency with Goal Visual-1 and Objective Visual-1.2 of the Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan.

Table 4.5-7. Comparison of Alternatives – Visual Resources

Component / Impact	Approved Project ¹ (No Project / No Action Alternative)	Modified Project
Cumulative impacts to visual resources	Cumulatively significant visual effects associated with construction activities and equipment, increased T/L structure size and/or materials where T/Ls currently exist, and non-compliance with established visual resources management plans. Cumulatively significant but mitigable impacts associated with the long-term loss and/or degradation of scenic viewsheds. No cumulatively significant effects from marker balls, aviation lighting, or aviation lighting power sources.	Cumulatively significant visual effects associated with the addition of marker balls on T/L spans, aviation lighting on T/L towers, long-term loss/degradation of scenic viewsheds, and non-compliance with established visual resources management plans. No cumulatively significant effects from construction activities and equipment, or increased T/L structure size and/or materials where T/Ls currently exist.

¹ – The Approved Project is based on the originally approved overhead design.

4.5 VISUAL RESOURCES
Tehachapi Renewable Transmission Project



Aspen
Environmental Group

Figure 4.5-1 (Revised)

Key Observation Points

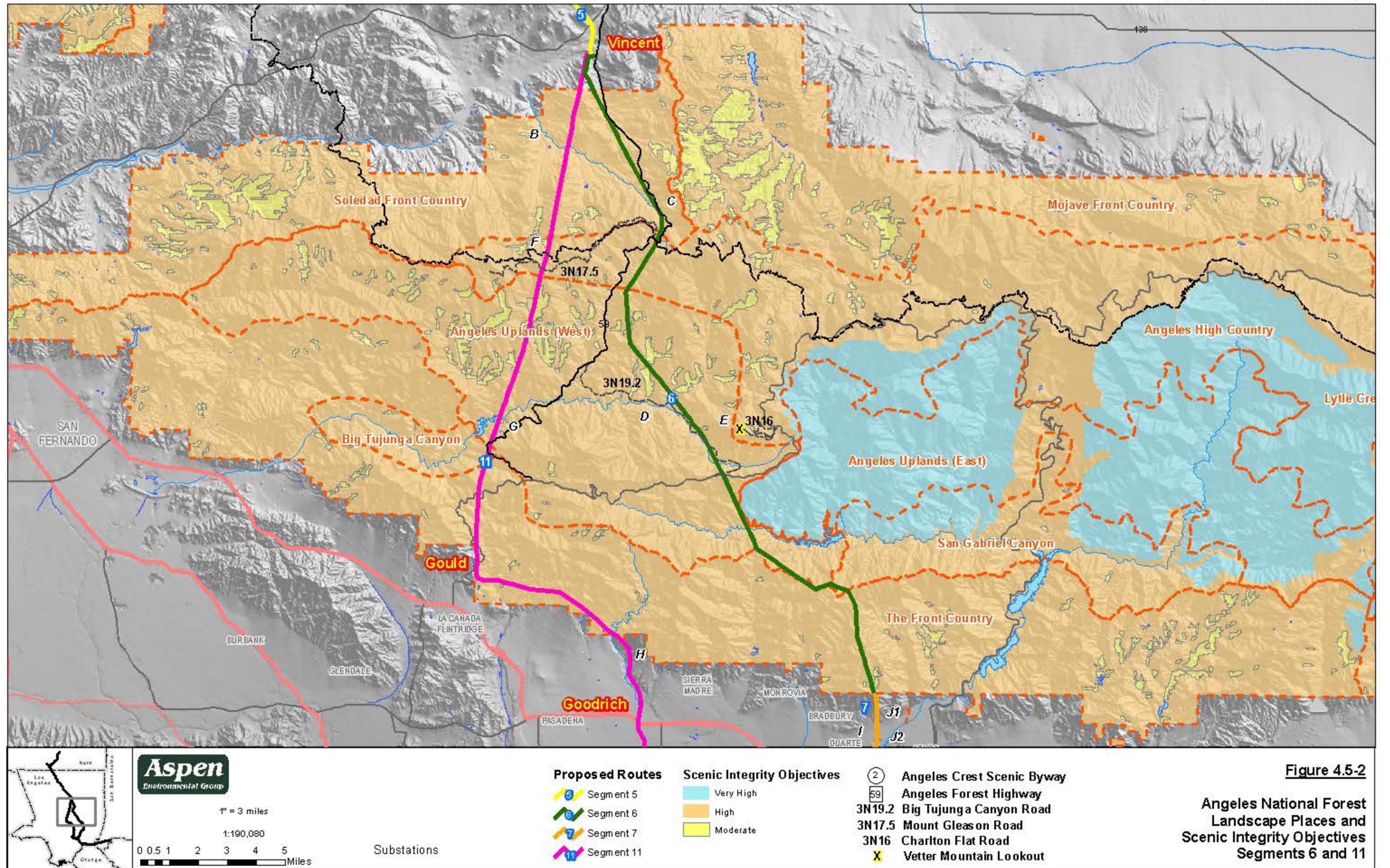




Figure 4.5-3a
Approved Project
Existing Condition for KOP A,
Paintbrush Drive and Bower Place,
Palmdale (Segment 5)

Source: WKA, 2012



Figure 4.5-3b
Modified Project
Simulation for KOP A,
Paintbrush Drive and Bower Place,
Palmdale (Segment 5)
Source: WKA, 2012



Figure 4.5-4a
Post-Fire (2012) Approved Project
Simulation for KOP B,
Eastbound Aliso Canyon Road
(Segment 11)
Source: WKA, 2012; 3DScape, 2013.



Figure 4.5-4b
Post-Fire (2012) Modified Project
Simulation for KOP B,
Eastbound Aliso Canyon Road
(Segment 11)
Source: WKA, 2012; 3DScape, 2013.



Figure 4.5-5a
Post-Fire (2012) Approved Project
Simulation for KOP C,
Northbound Angeles Forest Highway
(Segment 6)
Source: WKA, 2012; 3DScape, 2013.



Figure 4.5-5b
Post-Fire (2012) Modified Project
Simulation for KOP C,
Northbound Angeles Forest Highway
(Segment 6)
Source: WKA, 2012; 3DScape, 2013.



Figure 4.5-6a
Post-Fire (2012) Approved Project
Simulation for KOP D,
Southbound Upper Big Tujunga
Canyon Road (Segment 6)

Source: WKA, 2012; 3DScape, 2013.



Marker Balls

Figure 4.5-6b
Post-Fire (2012) Modified Project
Simulation for KOP D,
Southbound Upper Big Tujunga
Canyon Road (Segment 6)

Source: WKA, 2012; 3DScape, 2013.



Figure 4.5-7a
Post-Fire (2012) Approved Project
Simulation for KOP E,
Vetter Mountain Lookout
(Segment 6)

Source: WKA, 2012; 3DScape, 2013.





Figure 4.5-8a
Post-Fire (2012) Approved Project
Simulation for KOP F,
Pacific Crest Trail (Segment 11)
Source: WKA, 2012; 3DScape, 2013.

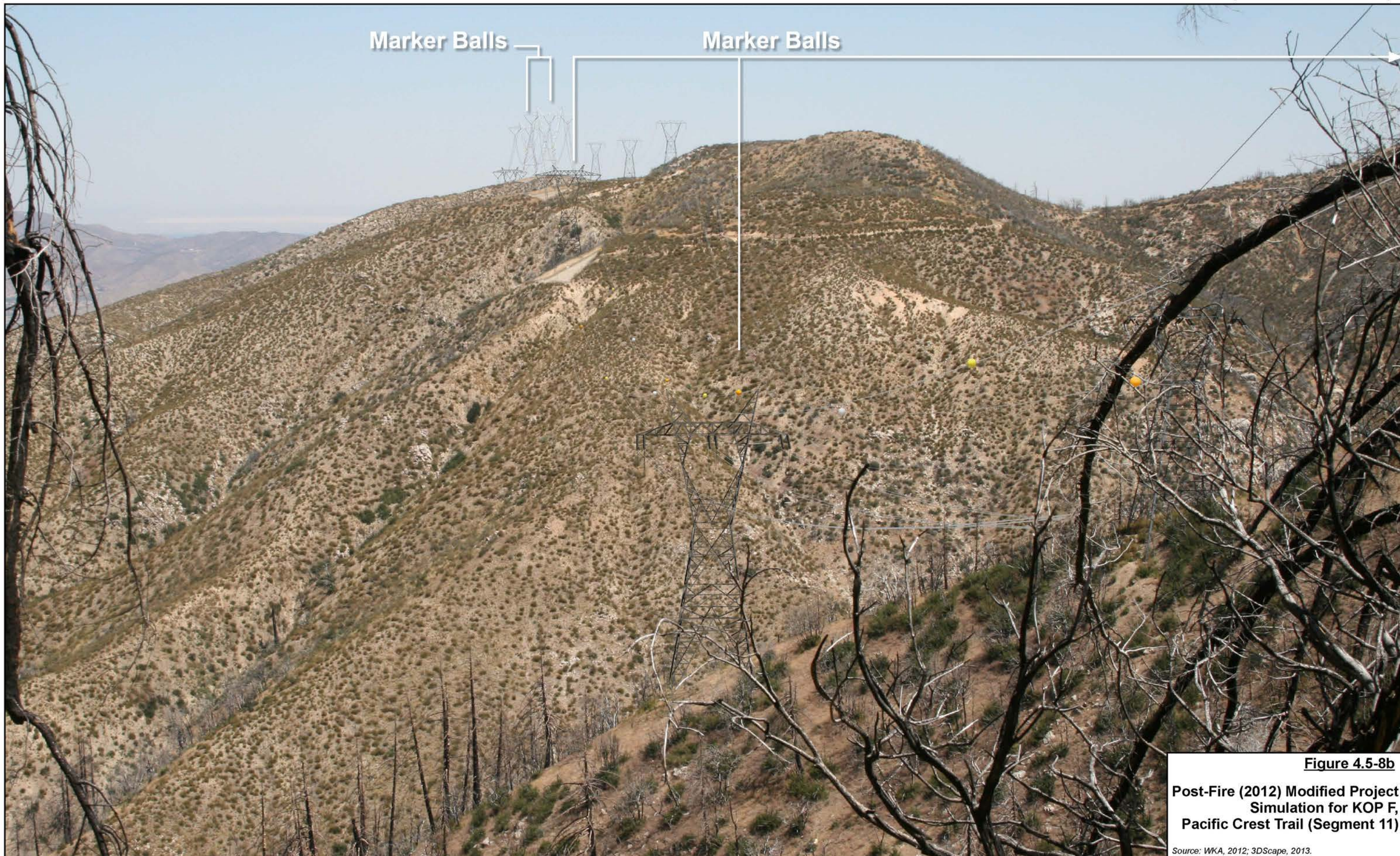




Figure 4.5-9a
Post-Fire (2012) Approved Project
Simulation for KOP G,
Northbound Angeles Forest Highway
(Segment 11)
Source: WKA, 2012; 3DScape, 2013.

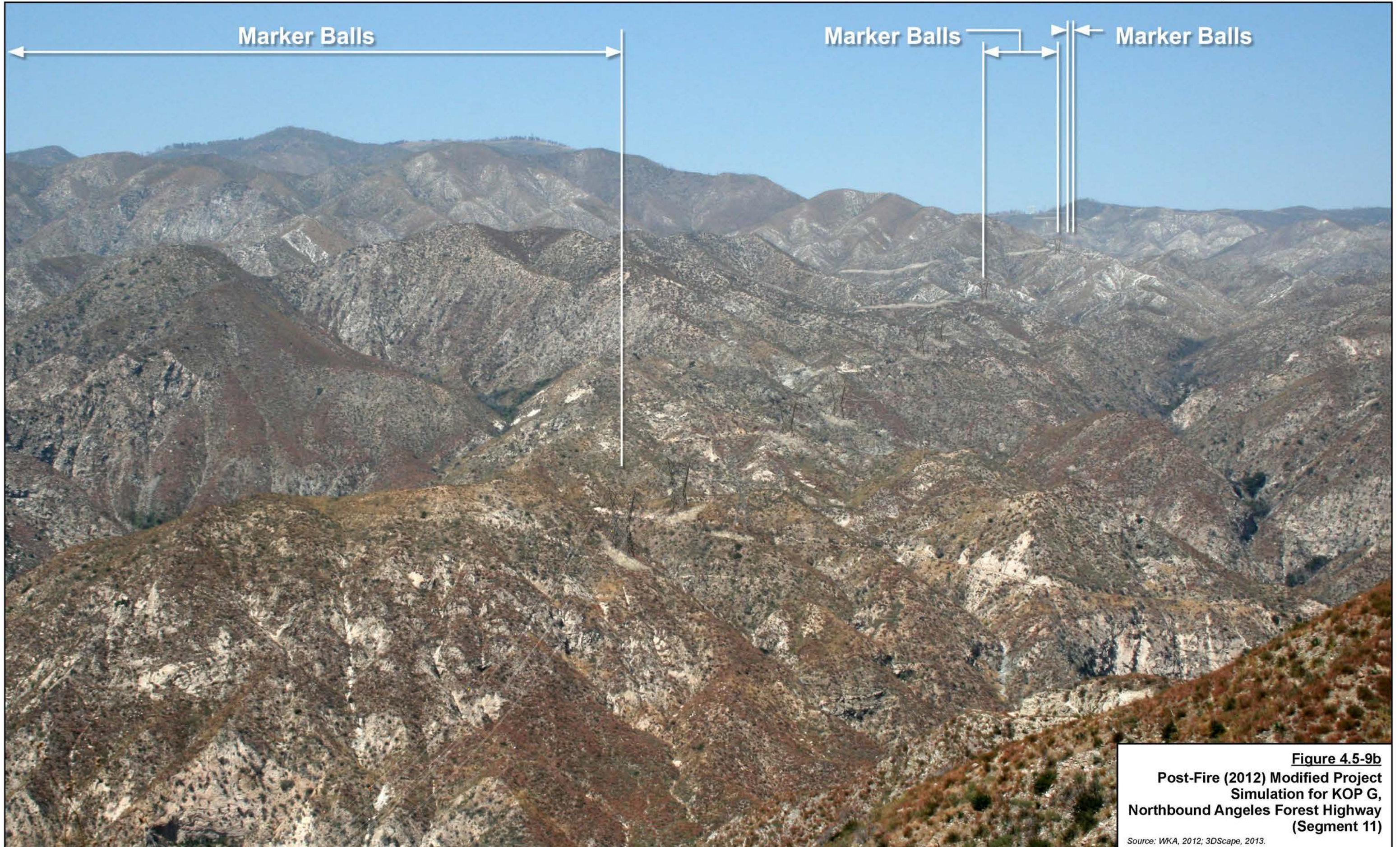


Figure 4.5-9b
Post-Fire (2012) Modified Project
Simulation for KOP G,
Northbound Angeles Forest Highway
(Segment 11)
Source: WKA, 2012; 3DScape, 2013.



Figure 4.5-10a
Approved Project
Simulation for KOP H,
Eaton Canyon Parkway, Altadena
(Segment 11)
Source: WKA, 2012.



Figure 4.5-10b
Modified Project
Simulation for KOP H,
Eaton Canyon Parkway, Altadena
(Segment 11)
Source: WKA, 2012.



Figure 4.5-11a
Approved Project
Simulation for KOP I,
Royal Oaks at Tocino Drive, Duarte
(Segment 7)
Source: SCE, 2007 (base); WKA, 2012
(base image modified)



Figure 4.5-11b
Modified Project
Simulation for KOP I,
Royal Oaks at Tocino Drive, Duarte
(Segment 7)
Source: SCE, 2007 (base); WKA, 2012.

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Figure 4.5-12a
**Existing Nighttime Condition for KOP J1 (Revised),
Greenbank Avenue, Duarte (Segment 7)**



Figure 4.5-12b
Existing Nighttime Condition for KOP J2 (Revised),
Royal Oaks Drive at the Project ROW, Duarte (Segment 7)



Figure 4.5-12c
Existing Nighttime Conditions for KOP J3 (New),
Buena Vista Street NE of United Rock Products,
Duarte (3 miles away) (Segment 7)

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Figure 4.5-13a
Approved Project
Simulation for KOP K,
Legg Lake, Whittier Narrows,
L.A. County (Segment 7)
Source: WKA, 2012



Figure 4.5-13b
Modified Project
Simulation for KOP K,
Legg Lake, Whittier Narrows,
L.A. County (Segment 7)
Source: WKA, 2012



Figure 4.5-14a
Approved Project
Simulation for KOP L,
Cargreen Avenue at Dolonita Avenue,
Hacienda Heights (Segment 8 – Phase 4)
Source: WKA, 2012



Figure 4.5-14b
Modified Project
Simulation for KOP L,
Cargreen Avenue at Dolonita Avenue,
Hacienda Heights (Segment 8 – Phase 4)
Source: WKA, 2012



Figure 4.5-15a
Approved Project
Simulation for KOP M,
Crossroads Park, Chino Hills
(Segment 8-Phase 1)
Source: WKA, 2012



Figure 4.5-15b
Modified Project
Simulation for KOP M,
Crossroads Park, Chino Hills
(Segment 8-Phase 1)
Source: WKA, 2012



Figure 4.5-16a
Approved Project
Simulation for KOP N,
Morningfield Drive, Chino Hills
(Segment 8-Phase 1)
Source: WKA, 2012



Figure 4.5-16b
Modified Project
Simulation for KOP N,
Morningfield Drive, Chino Hills
(Segment 8-Phase 1)
Source: WKA, 2012



Figure 4.5-17a
Approved Project
Simulation for KOP O,
Bike Path Near Edam Street, Chino
(Segment 8-Phase 2/3)
Source: SCE, 2011b (PMR).



Figure 4.5-17b
Modified Project
Simulation for KOP O,
Bike Path Near Edam Street, Chino
(Segment 8-Phase 2/3)
Source: SCE, 2011b (PMR).



Figure 4.5-18a
Approved Project
Simulation for KOP P,
South Archibald Avenue Near Arabian Place,
Chino (Segment 8-Phase 2/3)

Source: SCE, 2011b (PMR).



Figure 4.5-18b
Modified Project
Simulation for KOP P,
South Archibald Avenue Near Arabian Place,
Chino (Segment 8-Phase 2/3)
Source: SCE, 2011b (PMR).